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Water Resources Data for New Jersey Water Year 1982. Volume 2. Delaware River Basin and Tributaries to Delaware Bay

(U.S.) Geological Survey, Trenton, NJ

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U.S. Department of Commerce
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PB84-119734

Department of the Interior
March 3, 1849

Water Resources Data New Jersey Water Year 1982

Volume 2. Delaware River Basin and Tributaries to Delaware Bay

Volume 1. Atlantic Slope Basins, Hudson River to Cape May
Volume 2 Delaware River Basin and Tributaries to Delaware Bay

U.S. GEOLOGICAL SURVEY WATER-DATA REPORT NJ-82-2
Prepared in cooperation with the New Jersey
Department of Environmental Protection
and with other agencies

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NATIONAL TECHNICAL
INFORMATION SERVICE
U.S. DEPARTMENT OF COMMERCE
SPRINGFIELD, VA. 22161

CALENDAR FOR WATER YEAR 1982

1981

OCTOBER

S	M	T	W	T	F	S
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1982

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29	30	31				

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19	20	21	22	23	24	25
26	27	28	29	30		

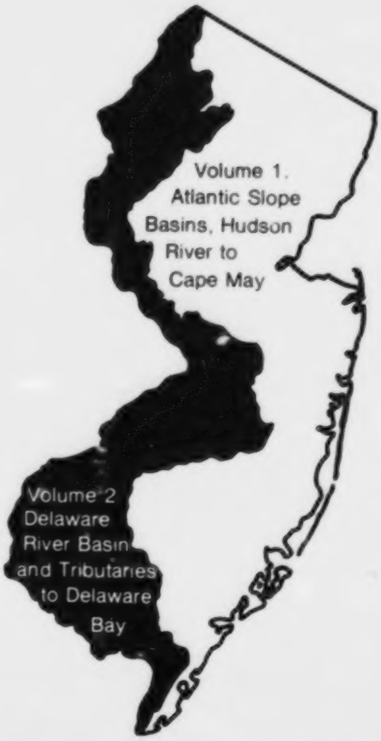
U.S. DEPARTMENT OF THE INTERIOR
March 3, 1849

THE GREAT SEAL OF THE STATE OF NEW JERSEY

Water Resources Data New Jersey Water Year 1982

Volume 2. Delaware River Basin and Tributaries to Delaware Bay

by W.R. Bauersfeld, E.W. Moshinsky, E.A. Pustay, and F.L. Schaefer


Volume 1. Atlantic Slope Basins, Hudson River to Cape May
Volume 2 Delaware River Basin and Tributaries to Delaware Bay

U.S. GEOLOGICAL SURVEY WATER-DATA REPORT NJ-82-2

Prepared in cooperation with the New Jersey
Department of Environmental Protection
and with other agencies

UNITED STATES DEPARTMENT OF THE INTERIOR

JAMES G. WATT, Secretary

GEOLOGICAL SURVEY

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Trenton, New Jersey 08608

1983

PREFACE

This volume of the annual hydrologic data report of New Jersey is one of a series of annual reports that document hydrologic data gathered from the U.S. Geological Survey's surface- and ground-water data-collection networks in each State, Puerto Rico, and the Trust Territories. These records of streamflow, ground-water levels, and quality of water provide the hydrologic information needed by State, local, and Federal agencies, and the private sector for developing and managing our Nation's land and water resources. Hydrologic data for New Jersey are contained in 2 volumes:

Volume 1. Atlantic Slope Basins, Hudson River to Cape May
Volume 2. Delaware River Basin and Tributaries to Delaware Bay

This report is the culmination of a concerted effort by dedicated personnel of the U.S. Geological Survey who collected, compiled, analyzed, verified, and organized the data, and who typed, edited, and assembled the report. In addition to the authors, who had primary responsibility for assuring that the information contained herein is accurate, complete, and adheres to Geological Survey policy and established guidelines, the following individuals contributed significantly to the collection, processing, and tabulation of the data:

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Water resources data for the 1982 water year for New Jersey consist of records of stage, discharge, and water quality of streams; stage, contents, and water quality of lakes and reservoirs; and water levels and water quality of ground water. This volume of the report contains discharge records for 21 gaging stations; tide summaries for 3 stations; stage and contents for 16 lakes and reservoirs; water quality for 58 surface-water sites and 78 wells; and water levels for 23 observation wells. Also included are data for 27 crest-stage partial-record stations, 7 tidal crest-stage gages, and 26 low-flow partial-record stations. Additional water data were collected at various sites, not part of the systematic data collection program, and are published as miscellaneous measurements. These data represent that part of the national water data system operated by U.S. Geological Survey and cooperating State and Federal agencies in New Jersey.

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b. Identifiers/Open-Ended Terms

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CONTENTS

Page
Preface ... III
List of surface-water stations, in downstream order, for which records are published ... VI
List of ground-water stations, by county, for which records are published ... VII
Introduction ... 1
Cooperation ... 1
Acknowledgments ... 1
Summary of hydrologic conditions ... 1
Definition of terms ... 2
Downstream order and station number ... 8
Numbering system for wells and miscellaneous sites ... 8
Special networks and programs ... 8
Explanation of stage and water-discharge records ... 8
  Collection and computation of data ... 8
  Accuracy of field data and computed results ... 10
  Publications ... 10
  Other data available ... 11
  Records of stage or discharge collected by agencies other than the Geological Survey ... 11
Explanation of water-quality records ... 11
  Collection and examination of data ... 11
  Water temperatures ... 12
  Sediment ... 12
  Remark codes for water-quality data ... 12
  Publications ... 12
Explanation of ground-water level records ... 13
  Collection of the data ... 13
  Publications ... 13
Selected references ... 13
Publications on techniques of water-resources investigations ... 16
Surface-water records ... 26
Discharge at partial-record stations and miscellaneous sites ... 172
  Low-flow partial-record stations ... 172
  Crest-stage partial-record stations ... 175
  Miscellaneous sites ... 179
Tidal crest-stage stations ... 180
Ground-water records ... 181
  Ground-water level records ... 181
  Quality of ground-water records ... 204
Index ... 207

ILLUSTRATIONS

Figure 1. Well locations system ... 8
2. Monthly streamflow at key gaging stations ... 17
3. Annual mean discharge at key gaging stations ... 18
4. Monthly ground-water levels at key observation wells ... 19
5. Map showing location of gaging stations, and surface-water quality stations ... 20
6. Map showing location of low-flow and crest-stage partial-record stations ... 22
7. Map showing location of ground-water quality stations and observation wells ... 24

TABLES

Table 1. Degrees Celsius (°C) to degrees Fahrenheit (°F) ... 11
2. Water-supply paper numbers, surface-water quality records, water years 1945-70 ... 13
3. Water-supply paper numbers, ground-water level records, water year 1935-74 ... 13
Factors for converting Inch-pound units to Metric units ... inside back cover

SURFACE WATER STATIONS, IN DOWNSTREAM ORDER, FOR WHICH RECORDS ARE PUBLISHED

[Letter after station name designates type of data: (d) discharge, (c) chemical, (m) microbiological, (e) elevation, gage height or contents, (t) water temperature, (s) sediment]

Page

MAURICE RIVER BASIN

Maurice River at Norma (dcmts) 26
  Menantico Creek near Millville (d) 32

COHANSEY RIVER BASIN

Cohansey River at Seeley (dcm) 33
Cohansey River at Bridgeton (cm) 36

DELAWARE RIVER BASIN

Delaware River at Port Jervis, NY (dt) 37
  Neversink River at Godeffroy, NY (d) 40
Delaware River at Montague (d) 41
  Big Flat Brook at Tuttles Corner (cm) 42
  Flat Brook at Flatbrookville (d) 44
Delaware River near Delaware Water Gap, PA (d) 45
Delaware River at Portland, PA (cm) 46
  Paulins Kill at Balesville (cm) 48
  Paulins Kill at Blairstown (dcm) 50
    Yards Creek near Blairstown (d) 53
  Paulins Kill at mouth, at Columbia (cm) 54
Delaware River near Richmond, PA (cm) 56
  Pequest River at Pequest (d) 57
    Beaver Brook near Belvidere (cm) 58
  Pequest River at Belvidere (cm) 59
Delaware River at Belvidere (d) 61
Delaware River at Northampton Street, at Easton, PA (cm) 62
  Lopatcong Creek at Phillipsburg (cm) 64
  Pohatcong Creek at New Village (cm) 66
  Pohatcong Creek at Carpentersville (cm) 68
  Musconetcong River at outlet of Lake Hopatcong (cm) 70
  Musconetcong River at Lockwood (cm) 72
  Musconetcong River at Beattystown (cm) 74
  Musconetcong River near Bloomsbury (d) 76
  Musconetcong River at Riegelsville (cm) 77
  Hakihokake Creek at Milford (cm) 79
  Harihokake Creek near Frenchtown (cm) 80
Delaware River at Frenchtown (cm) 81
  Delaware and Raritan Canal at Kingston (d) 82
  Lockatong Creek at Raven Rock (cm) 83
Delaware River at Lumberville (cm) 84
  Wickecheoke Creek at Stockton (cm) 86
  Alexauken Creek near Lambertville (cm) 87
Delaware River at Lambertville (cm) 88
Delaware River at Washington Crossing (cm) 89
Delaware River at Trenton (dtcsm) 90
  Assunpink Creek at Carsons Mills (cm) 100
  Assunpink Creek near Clarksville (cm) 101
  Assunpink Creek at Trenton (d) 102
  Crosswicks Creek at Extonville (dcm) 103
  Crosswicks Creek at Groveville (cm) 106
    Doctors Creek at Allentown (cm) 108
    Doctors Creek at Rt. 130, near Yardville (cm) 110
  Crafts Creek at Columbus (cm) 112
  Assiscunk Creek near Columbus (cm) 113
  Assiscunk Creek near Burlington (cm) 114
Delaware River at Burlington (e) 116
  South Branch Rancocas Creek at Retreat (cm) 117
  South Branch Rancocas Creek at Vincentown (cm) 119
    North Branch Rancocas Creek at Browns Mills (cm) 121
      Greenwood Branch:
        McDonalds Branch in Lebanon State Forest (dtcms) 123
    North Branch Rancocas Creek at Pemberton (dcm) 130
Delaware River at Palmyra (e) 133
  Pennsauken Creek:
  North Branch Pennsauken Creek near Moorestown (cm) 134
    South Branch Pennsauken Creek at Cherry Hill (dcm) 136
  Cooper River at Norcross Road, at Lindenwold (cm) 139
  Cooper River at Kirkwood (cm) 141
  Cooper River at Lawnside (cm) 143
  Cooper River at Haddonfield (d) 145
  Cooper River at Camden (cm) 146
  Big Timber Creek:
  South Branch Big Timber Creek at Blackwood Terrace (cm) 147
    North Branch Big Timber Creek at Glendora (cm) 149
  Mantua Creek at Pitman (cm) 151
  Mantua Creek at Mantua (cm) 153
  Raccoon Creek near Mullica Hill (cm) 155
  Raccoon Creek near Swedesboro (dcm) 157
  Oldmans Creek at Porches Mill (cm) 159
Delaware River at Delaware Memorial Bridge, at Wilmington, DE (e) 160
  Salem River at Woodstown (dcm) 161
Reservoirs in Delaware River basin (e) 163
  Diversions and withdrawals in Delaware River basin 169

GROUND WATER STATIONS, BY COUNTY, FOR WHICH RECORDS ARE PUBLISHED

Page

GROUND-WATER LEVEL RECORDS

BURLINGTON COUNTY

Lebanon State Forest 23-D.......... 181
Medford 4.......... 182
Medford 5.......... 183
Medford 1.......... 184
Medford 2.......... 185
Willingboro 2.......... 186
Willingboro 1.......... 187
Rhodia Corp. 1.......... 188

CAMDEN COUNTY

Elm Tree Farm 2.......... 189
Elm Tree Farm 3.......... 190
Hutton Hill 1.......... 191

CAPE MAY COUNTY

Higbee Beach 3.......... 192

CUMBERLAND COUNTY

Jones Island 2.......... 193
Orange Street.......... 194
Sheppards 1.......... 195

GLOUCESTER COUNTY

Shell Chemical 5.......... 196
Eagle Point 3.......... 197

HUNTERDON COUNTY

Bird.......... 198

SALEM COUNTY

Salem 1.......... 199
Salem 3.......... 200
Salem 2.......... 201
Point Airy.......... 202

WARREN COUNTY

Hoffman LaRoche 4.......... 203

QUALITY OF GROUND-WATER RECORDS

Camden County.......... 204
Cape May County.......... 204
Cumberland County.......... 205
Gloucester County.......... 206

INTRODUCTION

Water resources data for the 1982 water year for New Jersey consist of records of stage, discharge, and water quality of streams; stage, contents, and water quality of lakes and reservoirs; and water levels and water quality of ground water. This volume contains water discharge at 21 gaging stations; tide summaries for 3 stations; stage and contents for 16 lakes and reservoirs; water quality for 58 surface water sites, and 78 wells; and water levels for 23 observation wells. Also included are data for 27 crest-stage partial-record stations; 7 tidal crest-stage gage and 26 low-flow partial-record stations. Locations of these sites are shown in figures 5, 6, and 7. Additional water data were collected at various sites not part of the systematic data collection program and are published as miscellaneous measurements and analyses. These data together with the data in Volume 1 represent that part of the National Water Data System operated by the U.S. Geological Survey and cooperating State, Local, and Federal agencies in New Jersey.

Records of discharge or stage of streams, and contents or stage of lakes and reservoirs were first published in a series of U.S. Geological Survey water-supply papers entitled, "Surface Water Supply of the United States." Through September 30, 1960, these water-supply papers were in an annual series and then in a 5-year series for 1961-65 and 1966-70. Records of chemical quality, water temperature, and suspended sediment were published from 1941 to 1970 in an annual series of water-supply papers entitled, "Quality of Surface Waters of the United States." Records of ground-water levels were published from 1935 to 1974 in a series of water-supply papers entitled "Ground-Water Levels in the United States." Water-supply papers may be consulted in the libraries of the principal cities in the United States or may be purchased from Branch of Distribution, U.S. Geological Survey, 604 South Pickett Street, Alexandria, Virginia 22304.

For water years 1961 through 1970, streamflow data were released by the Geological Survey in annual reports on a State-boundary basis. Water-quality records for water years 1964 through 1970 were similarly released either in separate reports or in conjunction with streamflow records.

Beginning with the 1971 water year, water data for streamflow, water quality, and ground water are published in offical Survey reports on a State-boundary basis. These offical Survey reports carry an identification number consisting of the two letter State abbreviation, the last two digits of the water year, and the volume number. For example, this volume of the report is identified as "U.S. Geological Survey Water-Data Report NJ-82-2." These water-data reports are for sale, in paper copy or in microfiche, by the National Technical Information Service, U.S. Department of Commerce, Springfield, VA 22161.

Additional information, including current prices, for ordering specific reports may be obtained from the District Chief at the address given on the back of the title page or by telephone (609) 989-2162.

COOPERATION

This report was prepared by the U.S. Geological Survey under cooperative agreement with the following organizations:

New Jersey Department of Environmental Protection, Robert E. Hughey, commissioner.
  Division of Water Resources, John W. Gaston, Jr., director.
North Jersey District Water Supply Commission, Dean C. Noll, chief engineer.
Passaic Valley Water Commission, W.E. Inhoffer, general superintendent and chief engineer.
County of Bergen, E.R. Ranuska, director of Public Works and county engineer.
County of Camden, Joseph T. Patermo, director of Camden County Planning Board.
County of Morris, James Plante, chairman of Morris County Municipal Utilities Authority.
County of Somerset, Thomas E. Decker, county engineer, and Thomas Harris, administrative engineer.
Township of West Windsor, Larry Ellery, chairman of Environmental Commission.
Township of Bridgewater, Cynthia Jacobson, chairman of Environmental Commission.

Assistance in the form of funds was given by the Corps of Engineers, U.S. Army, in collecting records for 50 surface water stations, and for the collection of sediment records at one stream-sampling station, and by the U.S. Environmental Protection Agency for the collection of chemical analyses at four stream-sampling stations. In addition, several stations were operated fully or partially from funds appropriated directly to the Geological Survey. Assistance was also furnished by the National Weather Service and the National Ocean Survey.

The following organizations aided in collecting records:

Municipalities of Atlantic City, Jersey City, Newark, New Brunswick and Spotswood; American Cyanamid Co.; Commonwealth Water Co.; Elizabethtown Water Co.; Ewing-Lawrence Sewerage Authority; Hackensack Water Co.; Johns-Manville Products Corp.; and Monmouth Consolidated Water Co.; Jersey Central Power and Light Co.

Organizations that supplied data are acknowledged in station descriptions.

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SUMMARY OF HYDROLOGIC CONDITIONS

Streamflow increased significantly from the previous year. Streamflow in 1982 water year ranged from slightly above normal in northern New Jersey to 80 percent of normal in the south. Precipitation for the period was 94 percent of normal. Most reservoirs showed a recovery in storage and by the end of the year averaged 88 percent of capacity compared to 67 percent at the end of the previous year.

Water year 1982 began with streamflow near normal throughout the state. However, river flow showed a steady decline until by the end of December, runoff was from 1.5 to 2.0 inches deficient. A storm on January 4, resulting in from 1.5 to 2.5 inches of precipitation, began streamflow on an upward trend but a severe cold spell during January slowed down runoff. From February through May, the precipitation was below average and below normal streamflow was again recorded. Not until June did rivers show signs of recovery. Storms on June 14, 17, and 30 resulted in more than 75 percent of the month's rainfall, which was 157 percent of normal. For the remainder of the water year, rainfall was such that in northern New Jersey streamflow runoff was about normal while in the southern part of the state it was below normal.

Streamflow at the index station for northern New Jersey, South Branch Raritan River near High Bridge, averaged 125 ft^3/s (3.54 m^3/s) which was 103 percent of the 64-year average. The High Bridge runoff was 0.9 inches above the 25-inch long-term average. Streamflow at the index station for southern New Jersey, Great Egg Harbor River at Folsom, averaged 71.6 ft^3/s (2.03 m^3/s) which was 83 percent of the 57-year average. The Folsom runoff was 3.6 inches below the 21-inch long-term average. The observed annual mean discharge of the Delaware River at Trenton was 10,230 ft^3/s (289.7 m^3/s) which was 87 percent of normal. However, the Delaware River is highly regulated by reservoirs and diversion. The natural flow at Trenton (adjusted for diversion and storage upstream) was 97 percent of normal for the year.

Figures 2 and 3 compare the monthly and annual discharges with past records at the three index gaging stations.

Storage in the 13 major water-supply reservoirs in New Jersey increased from 50.2 billion gallons (67 percent of capacity) on October 1, 1981 to 66.3 billion gallons (88 percent of capacity) on September 30, 1982. Storage in Wanaque Reservoir increased from 16.9 billion gallons (61 percent of capacity) on October 1, 1981 to 24.4 billion gallons (87 percent of capacity) on September 30, 1982. Pumped storage in Round Valley Reservoir decreased from 42.4 billion gallons (77 percent of capacity) on October 1, 1981 to 39.8 billion gallons (72 percent of capacity) on September 30, 1982.

Return to near normal precipitation contributed to general improvement in water quality as reflected by specific conductance. Values of monthly means of specific conductance for non-winter months at the Passaic River at Little Falls and the Maurice River at Norma indicate decreases in dissolved solids concentrations. Rainfall in June also produced the lowest recorded values of specific conductance in the Maurice River at Norma since January 1980.

Ground-water levels that were affected mainly by climatic conditions were below normal for the second consecutive year. This was true for many water-table and confined aquifers in the northern counties as well as the water-table aquifers of the Atlantic Coastal Plain. Artesian water levels in most wells tapping the heavily stressed confined aquifers of the Coastal Plain continued to show long-term net declines. Increasing withdrawals of ground water contributed to these declines. As in past years, the declines were greatest in the Potomac-Raritan-Magothy aquifer system throughout the Coastal Plain and in the Wenonah-Mount Laurel, Englishtown, Old Bridge, and Farrington aquifers in the northern part of the Coastal Plain.

Monthly water levels are compared with long-term averages at two observation wells in figure 4. The wells illustrated are Bird in Hunterdon County and Crammer in Ocean County. For further comparison, 5-year hydrographs for most of the wells included in these reports are provided with the 1982 water-level records for the specific wells.

DEFINITION OF TERMS

Terms related to streamflow, water-quality and other hydrologic data, as used in this report, are defined below. See also the table for converting Inch-pound Units to Metric Units on the inside of the back cover.

Acre-foot (AC-FT, acre-ft) is the quantity of water required to cover 1 acre to a depth of 1 foot and is equivalent to 43,560 cubic feet or about 326,000 gallons or 1,233 cubic meters.

Adenosine triphosphate (ATP) is the primary energy donor in cellular life processes. Its central role in living cells makes it an excellent indicator of the presence of living material in water. A measure of ATP therefore provides a sensitive and rapid estimate of biomass. ATP is reported in micrograms per liter of the original water sample.

Algae are mostly aquatic single-celled, colonial, or multi-celled plants, containing chlorophyll and lacking roots, stems, and leaves.

Algal growth potential (AGP) is the maximum algal dry weight biomass that can be produced in a natural water sample under standardized laboratory conditions. The growth potential is the algal biomass present at stationary phase and is expressed as milligrams dry weight of algae produced per liter of sample.

Aquifer is a geologic formation, group of formations, or part of a formation that contains sufficient saturated permeable material to yield significant quantities of water to wells and springs.

Aquifer codes and geologic names:

The following list shows the aquifer codes and geologic names of the formations in which the sampled wells are finished. The aquifer codes also appear in the column "Geologic Unit" in the ground-water quality tables:

112CPMY , CAPE MAY FORMATION, UNDIFFERENTIATED
112ESRNS , CAPE MAY FORMATION, ESTUARINE SAND FACIES
121CNSY , COHANSEY SAND
121CKKD , KIRKWOOD-COHANSEY AQUIFER SYSTEM
112SFDF , STRATIFIED DRIFT
122KRKDU , RIO GRANDE WATER-BEARING ZONE OF THE KIRKWOOD FORMATION
122KRKDL , ATLANTIC CITY 800-FOOT SAND OF THE KIRKWOOD FORMATION
124MNSQ , MANASQUAN FORMATION
124PNPN , PINEY POINT AQUIFER
211MLRW , WENONAH-MOUNT LAUREL AQUIFER
211EGLS , ENGLISHTOWN AQUIFER
211MRPA , POTOMAC-RARITAN-MAGOTHY AQUIFER SYSTEM
211ODBG , OLD BRIDGE AQUIFER OF THE MAGOTHY FORMATION
211FRNG , FARRINGTON AQUIFER OF THE RARITAN FORMATION
231BRCK , BRUNSWICK SHALE OR FORMATION
231SCKN , STOCKTON FORMATION

Artesian means confined and is used to describe a well in which the water level stands above the top of the aquifer, tapped by the well. A flowing artesian well is one in which the water level is above land surface.

Bacteria are microscopic unicellular organisms, typically spherical, rod-like, or spiral and threadlike in shape, often clumped into colonies. Some bacteria cause disease, others perform an essential role in nature in the recycling of materials; for example, by decomposing organic matter into a form available for reuse by plants.

Total coliform bacteria are a particular group of bacteria that are used as indicators of possible sewage pollution. They are characterized as aerobic or facultative anaerobic, gram-negative, nonspore-forming, rod-shaped bacteria which ferment lactose with gas formation within 48 hours at 35°C. In the laboratory these bacteria are defined as all the organisms which produce colonies with a golden-green metallic sheen within 24 hours when incubated at 35°C ± 0.5°C on M-Endo medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 ml of sample.

Fecal coliform bacteria are bacteria that are present in the intestines or feces of warmblooded animals. They are often used as indicators of the sanitary quality of the water. In the laboratory they are defined as all organisms which produce blue colonies within 24 hours when incubated at 44.5°C ± 0.2°C on M-FC medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 ml of sample.

Fecal streptococcal bacteria are bacteria found also in the intestine of warm-blooded animals. Their presence in water is considered to verify fecal pollution. They are characterized as gram-positive, cocci bacteria which are capable of growth in brain-heart infusion broth. In the laboratory they are defined as all the organisms which produce red or pink colonies within 48 hours at 35°C ± 0.5°C on KF streptococcus medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 ml of sample.

Bedload is the sediment which moves along in essentially continuous contact with the streambed by rolling, sliding, and making brief excursions into the flow a few diameters above the bed.

Bed material is the unconsolidated material of which a streambed, lake, pond, reservoir, or estuary bottom is composed.

Biochemical oxygen demand (BOD) is a measure of the quantity of dissolved oxygen, in milligrams per liter, used for the decomposition of organic matter by microorganisms, such as bacteria.

Biomass is the amount of living matter present at any given time, expressed as the weight per unit area or volume of habitat.

Ash mass is the mass or amount of residue present after the residue from the dry mass determination has been ashed in a muffle furnace at a temperature of 500°C for 1 hour. The ash mass values of zooplankton and phytoplankton are expressed in grams per cubic meter (g/m^3) and periphyton and benthic organisms in grams per square meter (g/m^2).

Dry mass refers to the mass of residue present after drying in an oven at 60°C for zooplankton and 105°C for periphyton, until the mass remains unchanged. This mass represents the total organic matter, ash and sediment, in the sample. Dry mass values are expressed in the same units as ash mass.

Organic mass or volatile mass of the living substance is the difference between the dry mass and the ash mass, and represents the actual mass of the living matter. The organic mass is expressed in the same units as for ash mass and dry mass.

Wet mass is the mass of living matter plus contained water.

Bottom material: See Bed material.

Cells/volume refers to the number of cells of any organism which is counted by using a microscope and grid or counting cell. Many planktonic organisms are multicelled and are counted according to the number of contained cells per sample, usually milliliters (mL) or liters (L).

Cfs-day is the volume of water represented by flow of 1 cubic foot per second for 24 hours. It is equivalent to 86,400 cubic feet, approximately 1.9835 acre-feet, about 646,000 gallons or 2,447 cubic meters.

Chemical oxygen demand (COD) is a measure of the quantity of organic matter which can be chemically oxidized in the presence of a strong oxidant.

Chlorophyll refers to the green pigments of plants. Chlorophyll a and b are the two most common pigments in plants.

Color unit is produced by one milligram per liter of platinum in the form of the chloroplatinate ion. Color is expressed in units of the platinum-cobalt scale.

Contents is the volume of water in a reservoir or lake. Unless otherwise indicated, volume is computed on the basis of a level pool and does not include bank storage.

Continuing record station is a specified site which meets one or all conditions listed:

1. When chemical samples are collected daily or monthly for 10 or more months during the water year.

2. When water temperature records include observations taken one or more times daily.

3. When sediment discharge records include periods for which sediment loads are computed and are considered to be representative of the runoff for the water year.

Control designates a feature downstream from the gage that determines the stage-discharge relation at the gage. This feature may be a natural constriction of the channel, an artificial structure, or a uniform cross section over a long reach of the channel.

Control structure as used in this report is a structure on a stream or canal that is used to regulate the flow or stage of the stream or to prevent the intrusion of salt water.

Cubic feet per second per square mile ($ft^3/s/mi^2$, CFSM) is the average number of cubic feet of water flowing per second from each square mile of area drained, assuming that the runoff is distributed uniformly in time and area.

Cubic foot per second (ft^3/s, cfs) is the rate of discharge representing a volume of 1 cubic foot passing a given point during 1 second and is equivalent to 7.48 gallons per second or 448.8 gallons per minute or 0.02832 cubic meters per second.

Discharge is the volume of water (or more broadly, volume of fluid plus suspended sediment), that passes a given point within a given period of time.

Instantaneous discharge is the discharge at a particular instant of time.

Mean discharge (MEAN) is the arithmetic mean of individual daily mean discharges during a specific period.

Dissolved refers to that material in a representative water sample which passes through a 0.45 um membrane filter. This is a convenient operational definition used by Federal agencies that collect water data. Determinations of "dissolved" constituents are made on subsamples of the filtrate.

Diversity index is a numerical expression of the evenness of distribution of aquatic organisms. The formula for diversity index is:

$$\bar{d} = -\sum_{i=1}^{s} \frac{n_i}{n} \log_2 \frac{n_i}{n}$$

Where n_i is the number of individuals per taxon, n is the total number of individuals, and s is the total number of taxa in the sample of the community. Diversity index values range from zero, when all the organisms in the sample are the same, to some positive number, when some or all of the organisms in the sample are different.

Drainage area of a stream at a specified location is that area, measured in a horizontal plane, enclosed by a topographic divide from which direct surface runoff from precipitation normally drains by gravity into the stream above the specified point. Figures of drainage area given herein include all closed basins, or noncontributing areas, within the area unless otherwise noted.

Drainage basin is a part of the surface of the earth that is occupied by a drainage system, which consists of a surface stream or body of impounded surface water together with all tributary surface stream and bodies of impounded surface water.

Gage height (G.H.) is the water-surface elevation referred to some arbitrary gage datum. Gage height is often used interchangeably with the more general term "stage," although gage height is more appropriate when used with a reading on a gage.

Gaging station is a particular site on a stream, canal, lake, or reservoir where systematic observations of gage height or discharge are obtained. When used in connection with a discharge record, the term is applied only to those gaging stations where a continuous record of discharge is obtained.

Hardness of water is a physical-chemical characteristic that is commonly recognized by the increased quantity of soap required to produce lather. It is attributable to the presence of alkaline earths (principally calcium and magnesium) and is expressed as equivalent calcium carbonate ($CaCO_3$).

High tide is the maximum height reached by each rising tide.

Hydrologic unit is a geographic area representing part or all of a surface drainage basin or distinct hydrologic feature as delineated by the Office of Water Data Coordination on the State Hydrologic Unit Maps; each hydrologic unit is identified by an 8-digit number.

Land-surface datum is a datum plane that is approximately at the land surface at the well.

Low tide is the minimum height reached by each falling tide.

Mean high or low tide is the average of all high or low tides, respectively, over a specified period.

Metamorphic stage refers to the stage of development that an organism exhibits during its transformation from an immature form to an adult form. This developmental process exists for most insects, and the degree of difference from the immature stage to the adult form varies from relatively slight to pronounced, with many intermediates. Examples of metamorphic stages of insects are egg-larva-adult or egg-nymph-adult.

Methylene blue active substance (MBAS) is a measure of apparent detergents. This determination depends on the formation of a blue color when methylene blue dye reacts with synthetic detergent compounds.

Micrograms per gram (UG/G) is a unit expressing the concentration of a chemical element as the weight (micrograms) of the element sorbed per unit weight (gram) of sediment.

Micrograms per liter (UG/L, µg/L) is a unit expressing the concentration of chemical constituents in solution as weight (micrograms) of solute per unit volume (liter) of water. One thousand micrograms per liter is equivalent to one milligram per liter.

Milligrams per liter (MG/L, mg/L) is a unit for expressing the concentration of chemical constituents in solution. Milligrams per liter represents the weight of solute per unit volume of water. Milligrams or micrograms per liter may be converted to milliequivalents (one thousandth of a gram-equivalent weight of a constituent) per liter by multiplying by the factors in Hem (1970).

National Geodetic Vertical Datum of 1929 (NGVD of 1929). A geodetic datum derived from a general adjustment of the first order level nets of both the United States and Canada, formerly called "Mean Sea Level."

NJ-WRD well number is a hyphenated, 6-digit identification number which the U.S. Geological Survey assigned to all New Jersey wells in the Ground Water Site Inventory (GWSI) data base. This numbering system was developed in 1978 to simplify identification of wells. The first two digits are a code for the county in which the well is located, and the last four digits are a sequence number. Each well added to GWSI is assigned the next higher sequence number for the county in which the well is located. These NJ-WRD well numbers are being used now in the ground-water level descriptions, wells sampled for water-quality analyses, and on the corresponding location maps in these reports.

Organism is any living entity, such as an insect, phytoplankter, or zooplankter.

Organism count/area refers to the number of organisms collected and enumerated in a sample and adjusted to the number per area habitat, usually square meters (m^2), acres, or hectares. Periphyton, benthic organisms, and macrophytes are expressed in these terms.

Organism count/volume refers to the number of organisms collected and enumerated in a sample and adjusted to the number per sample volume, usually milliliters (mL) or liters (L). Numbers of planktonic organisms can be expressed in these terms.

Total organism count is the total number of organisms collected and enumerated in any particular sample.

Partial-record station is a particular site where limited streamflow data are collected systematically over a period of years for use in hydrologic analyses.

Particle size is the diameter, in millimeters (mm), of suspended sediment or bed material determined either by sieve or sedimentation methods. Sedimentation methods (pipet, bottom-withdrawal tube, visual-accumulation tube) determine fall diameter of particles in either distilled water (chemically dispersed) or in active water (the river water at the time and point of sampling).

Particle-size classification used in this report agrees with recommendations made by the American Geophysical Union Subcommittee on Sediment Terminology. The classification is as follows:

Classification	Size (mm)	Method of analysis
Clay..........	0.00024 - 0.004	Sedimentation.
Silt..........	.004 - .062	Sedimentation.
Sand..........	.062 - 2.0	Sedimentation or sieve.
Gravel........	2.0 - 64.0	Sieve.

The particle-size distributions given in this report are not necessarily representative of all particles in transport in the stream. Most of the organic material is removed and the sample is subjected to mechanical and chemical dispersion before analysis in distilled water. Chemical dispersion is not used for native-water analysis.

Percent composition is a unit for expressing the ratio of a particular part of a sample or population to the total sample or population, in terms of types, numbers, mass or volume.

Periphyton is the assemblage of microorganisms attached to and growing upon solid surfaces. While primarily consisting of algae, they also include bacteria, fungi, protozoa, rotifers, and other small organisms. Periphyton is a useful indicator of water quality.

Pesticides are chemical compounds used to control the growth of undesirable plants and animals. Major categories of pesticides include insecticides, miticides, fungicides, herbicides, and rodenticides.

Picocurie (PCI, pCi) is one trillionth (1×10^{-12}) of the amount of radioactivity represented by a curie (Ci). A curie is the amount of radioactivity that yields 3.7×10^{10} radioactive disintegrations per second. A picocurie yields 2.22 dpm (disintegrations per minute).

Plankton is the community of suspended, floating, or weakly swimming organisms that live in the open water of lakes and rivers.

Phytoplankton is the plant part of the plankton. They are usually microscopic and their movement is subject to the water currents. Phytoplankton growth is dependent upon solar radiation and nutrient substances. Because they are able to incorporate as well as release materials to the surrounding water, the phytoplankton have a profound effect upon the quality of the water. They are the primary food producers in the aquatic environment, and are commonly known as algae.

Blue-green algae are a group of phytoplankton organisms having a blue pigment, in addition to the green pigment called chlorophyll. Blue-green algae often cause nuisance conditions in water.

Diatoms are the unicellular or colonial algae having a siliceous shell. Their concentrations are expressed as number of cells per milliliter of sample.

Green algae have chlorophyll pigments similar in color to those of higher green plants. Some forms produce algal mats or floating "moss" in lakes. Their concentrations are expressed as number of cells per milliliter of sample.

Zooplankton is the animal part of the plankton. Zooplankton are capable of extensive movements within the water column, and are often large enough to be seen with the unaided eye. Zooplankton are secondary consumers feeding upon bacteria, phytoplankton, and detritus. Because they are the grazers in the aquatic environment, the zooplankton are a vital part of the aquatic food web. The zooplankton community is dominated by small crustaceans and rotifers.

Polychlorinated biphenyls (PCBs) are industrial chemicals that are mixtures of chlorinated biphenyl compounds having various percentages of chlorine. They are similar in structure to organochlorine insecticides.

Primary productivity is a measure of the rate at which new organic matter is formed and accumulated through photosynthetic and chemosynthetic activity of producer organisms (chiefly green plants). The rate of primary production is estimated by measuring the amount of oxygen released (oxygen method) or the amount of carbon assimilated by the plants (carbon method).

Milligrams of carbon per area or volume per unit time [mg C/(m^2/time) for periphyton and macrophytes and mg C/(m^3/time) for phytoplankton] are units for expressing primary productivity. They define the amount of carbon dioxide consumed as measured by radioactive carbon (carbon 14). The carbon 14 method is of greater sensitivity than the oxygen light and dark bottle method, and is preferred for use in unenriched waters. Unit time may be either the hour or day, depending on the incubation period.

Milligrams of oxygen per area or volume per unit time [mg $O_2/(m^2/time)$ for periphyton and macrophytes and mg $O_2/(m^3/time)$ for phytoplankton] are the units for expressing primary productivity. They define production and respiration rates as estimated from changes in the measured dissolved oxygen concentration. The oxygen light and dark bottle method is preferred if the rate of primary production is sufficient for accurate measurements to be made within 24 hours. Unit time may be either the hour or day, depending on the incubation period.

Radioisotopes are isotope forms of an element that exhibit radioactivity. Isotopes are varieties of a chemical element that differ in atomic weight, but are very nearly alike in chemical properties. The difference arises because the atoms of the isotopic forms of an element differ in the number of neutrons in the nucleus. For example: ordinary chlorine is a mixture of isotopes having atomic weights 35 and 37, with the natural mixture having an atomic weight of 35.453.

Radioisotopes that are determined in this report are natural uranium in µg/L (micrograms per liter), radium as radium-226 in PCI/L, (pCi/L, picocuries per liter), gross beta in PCI/L, and gross alpha radiation as micrograms of uranium equivalent per liter (µg/L). Gross alpha and beta radioactivity associated with the fine grained (silt and clay sized) sediments in the samples are also determined.

Recoverable from bottom material is the amount of a given constituent that is in solution after a representative sample of bottom material has been digested by a method (usually using an acid or mixture of acids) that results in dissolution of only readily soluble substances. Complete dissolution of all bottom material is not achhieved by the digestion treatment and thus the determination represents less than the total amount (that is, less than 95 percent) of the constituent in the sample. To achieve comparability of analytical data, equivalent digestion procedures would be required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

River mile as used herein, is the distance above the mouth of Delaware Bay, measured along the center line of the navigation channel or the main stem of the Delaware River. River mile data were furnished by the Delaware River Basin Commission.

Runoff in inches (IN, in) shows the depth to which the drainage area would be covered if all the runoff for a given time period were uniformly distributed on it.

Screened interval (FT) is the length of well screen through which water enters a well, in feet below land surface.

Sediment is solid material that originates mostly from disintegrated rocks and is transported by, suspended in, or deposited from water; it includes chemical and biochemical precipitates and decomposed organic material such as humus. The quantity, characteristics, and cause of the occurrence of sediment in streams are influenced by environmental factors. Some major factors are degree of slope, length of slope, soil characteristics, land usage, and quantity and intensity of precipitation.

Mean concentration is the time-weighted concentration of suspended sediment passing a stream section during a 24-hour day.

Suspended sediment is the sediment that at any given time is maintained in suspension by the upward components of turbulent currents or that exists in suspension as a colloid.

Suspended-sediment concentration is the velocity-weighted concentration of suspended sediment in the sampled zone (from the water surface to a point approximately 0.3 ft above the bed) expressed as milligrams of dry sediment per liter of water-sediment mixture (mg/L).

Suspended-sediment discharge (tons) is the rate at which dry weight of sediment passes a section of a stream or is the quantity of sediment, as measured by dry weight, or by volume, that is discharged in a given time. It is computed by multiplying discharge times mg/L times 0.0027.

Suspended-sediment load is quantity of suspended sediment passing a section in a specified period.

Total sediment discharge (tons/day) is the sum of the suspended-sediment discharge and the bed-load discharge. It is the total quantity of sediment, as measured by dry weight or volume, that passes a section during a given time.

Solute is any substance derived from the atmosphere, vegetation, soil, or rocks that is dissolved in water.

Specific conductance is a measure of the ability of a water to conduct an electrical current and is expressed in micromhos per centimeter at 25°C. Because the specific conductance is related to the number and specific chemical types of ions in solution, it can be used for approximating the dissolved-solids content of the water. Commonly, the amount of dissolved solids (in milligrams per liter) is about 65 percent of the specific conductance (in micromhos per cm at 25°C). This relation is not constant from stream to stream or from well to well, and it may even vary in the same source with changes in the composition of the water.

Stage-discharge relation is the relation between gage height and the amount of water flowing in a channel, expressed as volume per unit of time.

Streamflow is the discharge that occurs in a natural channel. Although the term "discharge" can be applied to the flow of a canal, the word "streamflow" uniquely describes the discharge in a surface stream course. The term "streamflow" is more general than "runoff." Streamflow may be applied to discharge whether or not it is affected by diversion or regulation.

Substrate is the physcial surface upon which an organism lived.

Artificial substrate is a device which is purposely placed in a stream or lake for colonization by organisms. The artificial substrate simplifies the community structure by standardizing the substrate from which each sample is taken. Examples of artificial substrates are basket samplers (made of wire cages filled with clean streamside rocks) and multi-plate samplers (made of hardboard) for benthic organism collection, and plexiglass strips for periphyton collection.

Natural substrate refers to any naturally occurring emersed or submersed solid surface, such as a rock or tree, upon which an organism lived.

Surface area of a lake is that area outlined on the latest U.S.G.S. topographic map as the boundary of the lake and measured by a planimeter in acres. In localities not covered by topographic maps, the areas are computed from the best maps available at the time planimetered. All areas shown are those for the stage when the planimetered map was made.

Surficial bed material is that part (0.1 to 0.2 ft) of the bed material that is sampled using U.S. Series Bed-Material Samplers.

Suspended, recoverable is the amount of a given constituent that is in solution after the part of a representative water-suspended sediment sample that is retained on a 0.45 μm membrane filter has been digested by a method (usually using a dilute acid solution) that results in dissolution of only readily soluble substances. Complete dissolution of all the particulate matter is not achieved by the digestion treatment and thus the determination represents something less than the "total" amount (that is, less than 95 percent) of the constituent present in the sample. To achieve comparability of analytical data, equivalent digestion procedures would be required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

Determinations of "suspended, recoverable" constituents are made either by analyzing portions of the material collected on the filter or, more commonly, by difference, based on determinations of (1) dissolved and (2) total recoverable concentrations of the constituent.

Suspended, total is the total amount of a given constituent in the part of a representative water-suspended sediment sample that is retained on a 0.45 μm membrane filter. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent determined. A knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to determine when the results should be reported as "suspended, total."

Determinations of "suspended, total" constituents are made either by analyzing portions of the material collected on the filter or, more commonly, by difference, based on determinations of (1) dissolved and (2) total concentrations of the constituent.

Taxonomy is the division of biology concerned with the classification and naming of organisms. The classification of organisms is based upon a hierarchical scheme beginning with Kingdom and ending with Species at the base. The higher the classification level, the fewer features the organisms have in common. For example, the taxonomy of a particular mayfly, Hexagenia limbata is the following:

Kingdom	Animal
Phylum	Arthropoda
Class	Insecta
Order	Ephemeroptera
Family	Ephemeridae
Genus	Hexageria
Species	Hexagenia limbata

Thermograph is a thermometer that continuously and automatically records, on a chart, the water temperatures of a stream. "Temperature recorder" is the term used to indicate the location of the thermograph or a digital mechanism that automatically records water temperature on paper tape.

Time-weighted average is computed by multiplying the number of days in the sampling period by the concentrations of individual constituents for the corresponding period and dividing the sum of the products by the total number of days. A time-weighted average represents the composition of water that would be contained in a vessel or reservoir that had received equal quantities of water from the stream each day for the year.

Tons per acre-foot indicates the dry mass of dissolved solids in 1 acre-foot of water. It is computed by multiplying the concentration in milligrams per liter by 0.00136.

Tons per day is the quantity of a substance in solution or suspension that passes a stream section during a 24-hour day.

Total is the total amount of a given constituent in a representative water-suspended sediment sample, regardless of the constituent's physical or chemical form. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent present in both the dissolved and suspended phases of the sample. A knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to judge when the results should be reported as "total" (Note that the word "total" does double duty here, indicating both that the sample consists of a water-suspended sediment mixture and that the analytical method determines all of the constituent in the sample).

Total in bottom material the total amount of a given constituent in a representative sample of bottom material. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent determined. A knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to judge when the results should be reported as "total in bottom material."

Total load (tons) is the total quantity of any individual constituent, as measured by dry mass or volume, that is being transported in a specific amount of water (discharge) during a given time. It is computed by multiplying the total discharge, times the mg/L of the constituent, times the factor 0.0027, times the number of days.

Total, recoverable is the amount of a given constituent that is in solution after a representative water-suspended sediment sample has been digested by a method (usually using a dilute acid solution) that results in dissolution of only readily soluble substances. Complete dissolution of all particulate matter is not achieved by the digestion treatment, and thus the determination represents something less than the "total" amount (that is, less than 95 percent) of the constituent present in the dissolved and suspended phases of the sample. To achieve comparability of analytical data, equivalent digestion procedures would be required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

WDR is used as an abbreviation for "Water-Data Report" in the summary REVISIONS paragraph to refer to previously published State annual basic-data reports. Prior to 1975, WRD was used, which was the abbreviation for "Water-Resources Data."

Weighted average is used in this report to indicate discharge-weighted average. It is computed by multiplying the discharge for a sampling period by the concentrations of individual constituents for the corresponding period and dividing the sum of the products by the sum of the discharges. A discharge-weighted average approximates the composition of water that would be found in a reservoir containing all the water passing a given location during the water year after thorough mixing in the reservoir.

WSP is used as an abbreviation for "Water-Supply Paper" in reference to previously published reports.

DOWNSTREAM ORDER AND STATION NUMBER

Since October 1, 1950, the order of listing hydrologic-station records in Survey reports is in a downstream direction along the main stream. All stations on a tributary entering upstream from a main-stream station are listed before that station. A station on a tributary that enters between two main-stream stations is listed between them. A similar order is followed in listing stations on first rank, second rank, and other ranks of tributaries. The rank of any tributary on which a station is situated with respect to the stream to which it is immediately tributary is indicated by an indention in a list of stations in front of the report. Each indention represents one rank. This downstream order and system of indention show which stations are on tributaries between any two stations and the rank of the tributary on which each station is situated.

As an added means of identification, each hydrologic station and partial-record station has been assigned a station number. These are in the same downstream order used in this report. In assigning station numbers, no distinction is made between partial-record stations and other stations; therefore, the station number for a partial-record station indicates downstream-order position in a list made up of both types of stations. Gaps are left in the series of numbers to allow for new stations that may be established; hence, the numbers are not consecutive. The complete 8-digit number for each station such as 01463500, which appears just to the left of the station name, includes the 2-digit part number "01" plus the 6-digit downstream order number "463500."

NUMBERING SYSTEM FOR WELLS AND MISCELLANEOUS SITES

The 8-digit downstream order station numbers are not assigned to wells and miscellaneous sites where only random water-quality samples or discharge measurements are taken.

The wells and miscellaneous site numbering system of the U.S. Geological Survey is based on the grid system of latitude and longitude. The system provides the geographic location of the well or miscellaneous site and a unique number for each site. The number consists of 15 digits. The first 6 digits denote the degrees, minutes, and seconds of latitude, the next 7 digits denote degrees, minutes, and seconds of longitude, and the last 2 digits are a sequential number for wells within a 1-second grid. In the event that the latitude-longitude coordinates for a well and a miscellaneous site are the same, they are assigned sequential numbers "01", "02", etc. as one would for wells. See figure 1 below.

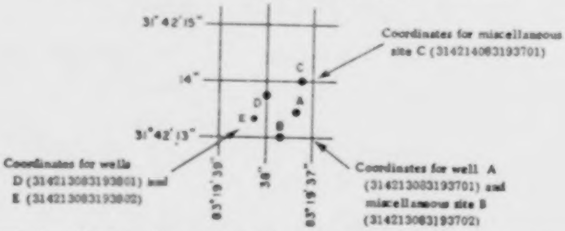
31°42'15"
Coordinates for miscellaneous site C (314214083193701)
C
14"
D
A
E
B
31°42'13"
Coordinates for wells D (314213083193801) and E (314213083193802)
083°19'30"
38"
083°19'37"
Coordinates for well A (314213083193701) and miscellaneous site B (314213083193702)

Figure 1. System for numbering wells and miscellaneous sites (latitude and longitude)

SPECIAL NETWORKS AND PROGRAMS

Some of the stations for which data are published in this report are included in special networks and programs. These stations are identified by their title, set in parentheses, under the station name.

Hydrologic bench-mark station is one that provides hydrologic data for a basin in which the hydrologic regimen will likely be governed solely by natural conditions. Data collected at a bench-mark station may be used to separate effects of natural from manmade changes in other basins which have been developed and in which the physiography, climate, and geology are similar to those in the undeveloped bench-mark basin.

National stream-quality accounting network (NASQAN) is a data collection network designed by the U.S. Geological Survey to meet many of the information demands of agencies or groups involved in national or regional water-quality planning and management. Both accounting and broad-scale monitoring objectives have been incorporated into the network design. Areal configuration of the network is based on river-basin accounting units (identified by 8-digit hydrologic-unit numbers) designated by the Office of Water Data Coordination in consultation with the Water Resources Council. Primary objectives of the network are (1) to depict areal variability of streamflow and water-quality conditions nationwide on a year-by-year basis and (2) to detect and assess long-term changes in streamflow and stream quality.

Pesticide program is a network of regularly sampled water-quality stations where samples are collected to determine the concentration and distribution of pesticides in stream where potential contamination could result from the application of the commonly used insecticides and herbicides. Operation of the network is a Federal interagency activity.

Radiochemical program is a network of regularly sampled water-quality stations where samples are collected to be analyzed for radioisotopes. The streams that are sampled represent major drainage basins in the conterminous United States.

EXPLANATION OF STAGE AND WATER-DISCHARGE RECORDS

Collection and computation of data

The base data collected at gaging stations consist of records of stage and measurements of discharge of streams or canals, and stage, surface area, and contents of lakes or reservoirs. In addition, observations of factors affecting the stage-discharge relation or the stage-capacity relation, weather records, and other information are used to supplement base data in determining the daily flow or volume of water in storage. Records of stage are obtained from either direct readings on a nonrecording gage or from a water-stage recorder that gives either a continuous graph of the fluctuations or a tape punched at selected time intervals. Measurements of discharge are made with a current meter, using the general methods adopted by the Geological Survey. These methods are decribed in standard text-books, in Water-Supply Paper 888, and in U.S. Geological Survey Techniques of Water Resources Investigations, book 3, chapter A6.

For stream-gaging stations, rating tables giving the discharge for any stage are prepared from stage-discharge relation curves. If extensions to the rating curves are necessary to express discharge greater than measured, they are made on the basis of indirect measurements of peak discharge (such as slope-area or contracted-opening measurements, computation of flow over dams or weirs), step-backwater techniques, velocity-area studies, and logarithmic plotting. The daily mean discharge is computed from gage heights and rating tables, then the monthly and yearly mean discharge are computed from the daily figures. If the stage-discharge relation is subject to change because of frequent or continual change in the physical features that form the control, the daily mean discharge is computed by the shifting-control method, in which correction factors based on individual discharge measurements and notes by engineers and observers are used in applying the gage heights to the rating tables. If the stage-discharge relation for a station is temporarily changed by the presence of aquatic growth or debris on the control, the daily mean discharge is computed by what is basically the shifting-control method.

At some stream-gaging stations the stage-discharge relation is affected by backwater from reservoirs, tributary streams, or other sources. This necessitates the use of the slope method in which the slope or fall in a reach of the stream is a factor in determining discharge. The slope or fall is obtained by means of an auxiliary gage set at some distance from the base gage. At some stations the stage-discharge relation is affected by changing stage; at these stations the rate of change in stage is used as a factor in determining discharge.

At some northern stream-gaging stations the stage-discharge relation is affected by ice in the winter, and it becomes impossible to compute the discharge in the usual manner. Discharge for periods of ice effect is computed on the basis of the gage-height record and occasional winter discharge measurements, consideration being given to the available information on temperature and precipitation, notes by gage observers and hydrologists, and comparable records of discharge for other stations in the same or nearby basins.

For a lake or reservoir station, capacity tables giving the contents for any stage are prepared from stage-area relation curves defined by surveys. The application of the stage to the capacity table gives the contents, from which the daily, monthly, or yearly change in contents is computed. Discharge over spillways is computed from a stage-discharge relation curve defined by discharge measurements.

If the stage-capacity curve is subject to changes because of deposition of sediment in the reservoir, periodic resurveys of the reservoir are necessary to define new stage-capacity curves. During the period between reservoir surveys the computed contents may be increasingly in error due to the gradual accumulation of sediment.

For some gaging stations there are periods when no gage-height record is obtained or the recorded gage height is so faulty that it cannot be used to compute daily discharge or contents. This happens when the recorder stops or otherwise fails to operate properly, intakes are plugged, the float is frozen in the well, or for various other reasons. For such periods the daily discharge are estimated on the basis of recorded range in stage, adjoining good record, discharge measurements, weather records, and comparison with other station records from the same or nearby basins. Likewise daily contents may be estimated on the basis of operator's log, prior and subsequent records, inflow-outflow studies, and other information.

The data in this report generally comprise a description of the station and tabulations of daily and monthly figures. For gaging stations on streams or canals a table showing the daily discharge and monthly and yearly discharge is given. For gaging stations on lakes and reservoirs a monthly summary table of stage and contents or a table showing the daily contents is given. Tables of daily mean gage height are included for some streamflow stations and for some reservoir stations. Records are published for the water year, which begins on October 1 and ends on September 30.

The description of the gaging station gives the location, drainage area, period of record, notations of revisions of previously published records, type and history of gages, general remarks, average discharge, and extremes of discharge or contents. The location for the gaging station and the drainage area are obtained from the most accurate maps available. River mileage, given under "LOCATION" for some stations, is that determined and used by the Corps of Engineers or other agencies. Periods for which there are published records for the present stations or for stations generally equivalent to the present one are given under "PERIOD OF RECORD."

Previously published streamflow records of some stations have been found to be in error on the basis of data or information later obtained. Revisions of such records are usually published along with the current records in one of the annual or compilation reports. In order to make it easier to find such revised records, a paragraph headed "REVISED RECORDS" has been added to the description of all stations for which revised records have been published. Listed therein are all the reports in which revisions have been published, each followed by the water years for which figures are revised in that report. In listing the water years only one number is given; for instance, 1965 stands for the water year October 1, 1964, to September 30, 1965. If no daily, monthly, or annual figures of discharge are affected by the revision, the fact is brought out by notations after the year dates as follows: "(M)" means that only the instantaneous maximum discharge was revised; "(m)" that only the instantaneous minimum was revised; and "(P)" that only peak discharges were revised. If the drainage area has been revised, the report in which the revised figure was first published is given. It should be noted that for all stations for which cubic feet per square mile and runoff in inches are published, a revision of the drainage area necessitates corresponding revision of all figures based on the drainage area. Revised figures of cubic feet per second per square mile and runoff in inches resulting from a revision of the drainage area only are usually not published in the annual series of reports.

The type of gage currently in use; the datum of the present gage referred to National Geodetic Vertical Datum; and a condensed history of the types, locations, and datums of previous gages used during the period of record are given under "GAGE." National Geodetic Vertical Datum is explained in "DEFINITION OF TERMS."

Information pertaining to the accuracy of the discharge records and to conditions which affect the natural flow of the gaging station is given under "REMARKS."

The average discharge for the number of years indicated is given under "AVERAGE DISCHARGE"; it is not given for stations having fewer than 5 complete years of record or for stations where changes in water development during the period of record cause the figure to have little significance. In addition, the median of yearly mean discharges is given for stream-gaging stations having 10 or more complete years of record if the median differs from the average by more than 10 percent. Under "EXTREMES" are given first the extremes for current year, second, the extremes for the period of record, and last information available outside the period of record. Unless otherwise qualified, the maximum discharge (or contents) is the instantaneous maximum corresponding to the crest-stage obtained by use of a water-stage recorder (graphic or digital), a crest-stage gage, or a nonrecording gage read at the time of the crest. If the maximum gage height did not occur on the same day as the maximum discharge (or contents), it is given separately. Similarly, the minimum is the instantaneous minimum unless otherwise qualified. For some stations peak discharges are listed with EXTREMES FOR THE CURRENT YEAR; if they are, all independent peaks, including the maximum for the year, above the selected base with the time of occurrence and corresponding gage heights are published in tabular format. The base discharge, which is given in the table heading, is selected so that an average of about three peaks a year will be presented. Peak discharges are not published for any canals, ditches, drains, or for any stream for which the peaks are subject to substantial control by man. Time of day is expressed in 24-hour local standard time; for example, 12:30 a.m. is 0030, 1:30 p.m. is 1330. The minimums for these stations are published in a separate paragraph following the table of peaks.

Skeleton rating tables are published, immediately following EXTREMES, for stream-gaging stations where they serve a useful purpose and the dates of applicability can be easily identified.

The daily table for stream-gaging stations gives the mean discharge for each day and is followed by monthly and yearly summaries. In the monthly summary below the daily table, the line headed "TOTAL" gives the sum of the daily figures. The lines headed "MAX" and "MIN" give the maximum and minimum daily discharges, respectively, for the month. Discharge for the month also may be expressed in cubic feet per second per square mile (line headed "CFSM"), or in inches (line headed "IN"). Figures for cubic feet per second per square mile and runoff in inches are omitted if there is extensive regulation or diversion, if the drainage area includes large noncontributing areas, or if the average annual rainfall over the drainage basin is usually less than 20 inches. In the yearly summary below the monthly summary, the figures shown are the appropriate daily discharges for the calendar and water years.

Footnotes to the table of daily discharge are introduced by word "NOTE." Footnotes are used to indicate periods for which the discharge is computed or estimated by special methods because of no gage-height record, backwater from various sources, or other unusual conditions. Periods of no gage-height record are indicated if the period is continuous for a month or more or includes the maximum discharge for the year. Periods of backwater from an unusual source, of indefinite stage-relation, or of any other unusual condition at the gage site are indicated only if they are a month or more in length and the accuracy of the records is affected. Days on which the stage-discharge relation is affected by ice are not indicated. The methods used in computing discharge for various unusual conditions have been explained in preceding paragraphs.

For most gaging stations on lakes and reservoirs the data presented comprise a description of the station and a monthly summary table of stage and contents. For some reservoirs a table showing daily contents or stage is given. A skeleton table of capacity at given stages is published for all reservoirs for which records are published on a daily basis, but is not published for reservoirs for which only monthly data are given.

Data collected at partial-record stations follow the information for continuous record sites. Data for partial-record discharge stations are presented in two tables. The first is a table of discharge measurements at low-flow partial-record stations, and the second is a table of annual maximum stage and discharge at crest-stage stations. The tables of partial-record stations are followed by a listing of discharge measurements made at sites other than continuous-record or partial-record stations. Occasionally, a series of discharge measurements are made within a short time period to investigate the seepage gains or losses along a reach of a stream or to determine the low-flow characteristics of an area. Such measurements are also given in special tables following the tables of partial-record stations.

Accuracy of field data and computed results

The accuracy of streamflow data depends primarily on (1) the stability of the stage-discharge relation or, if the control is unstable, the frequency of discharge measurements, and (2) the accuracy of observations of stage, measurements of discharge, and interpretation of records.

The station description under "REMARKS" states the degree of accuracy of the records. "Excellent" means that about 95 percent of the daily discharges are within 5 percent; "good" within 10 percent; and "fair" within 15 percent. "Poor" means that daily discharges have less than "fair" accuracy.

Figures of daily mean discharge in this report are shown to the nearest hundredth of a cubic foot per second for discharges of less than 1 cfs; to tenths between 1.0 and 10 cfs; to whole numbers between 10 and 1,000 cfs; and to 3 significant figures above 1,000 cfs. The number of significant figures used is based solely on the magnitude of the figure. The same rounding rules apply to discharge figures listed for partial-record stations and miscellaneous sites.

Discharge at many stations, as indicated by the monthly mean, may not reflect natural runoff due to the effects of diversion, consumption, regulation by storage, increase or decrease in evaporation due to artificial causes, or to other factors. For such stations, figures of cubic feet per second per square mile and of runoff in inches are not published unless satisfactory adjustments can be made for diversions, for changes in contents of reservoirs, or for other changes incident to use and control. Evaporation from a reservoir is not included in the adjustments for changes in reservoir contents, unless it is so stated. Even at those stations where adjustments are made, large errors in computed runoff may occur if adjustments or losses are large in comparison with the observed discharge.

Publications

Each volume of the 1960 series of U.S. Geological Survey water-supply papers entitled "Surface Water Supply of the United States" contains a listing of the numbers of all water-supply papers in which records of surface-water data were published for the area covered by the individual volumes. Each volume also contains a list of water-supply papers that give detailed information on major floods for the area. A new series of water-supply papers containing surface-water record for the 5-year period October 1, 1965 to September 30, 1970, also will include lists of annual and special reports published as water-supply papers.

Records through September 1950 for the area covered by this report have been compiled and published in Water-Supply Paper 1302; records for October 1950 to September 1960 have been compiled and published in Water-Supply Paper 1722; records for October 1960 to September 1965 have been compiled and published in Water-Supply Paper 1902; records for October 1965 to September 1970 have been compiled and published in Water-Supply Paper 2102. These reports contain summaries of monthly and annual discharge and month-end storage for all previously published records, as well as some records not contained in the annual series of water-supply papers. All records were reexamined and revised where warranted. Estimates of discharge were made to fill short gaps whenever practical. The yearly summary table for each gaging station lists the numbers of the water-supply papers in which daily records were published for that station.

Special reports on major floods or droughts or of other hydrologic studies for the area have been issued in publications other than water-supply papers. Information relative to these reports may be obtained from the district office.

Other data available

Information of a more detailed nature than that published for most of the gaging stations such as observations of water temperatures, discharge measurements, gage-height records, and rating tables is on file in the district office. Also most gaging-station records are available in computer-usable form and many statistical analyses have been made.

Information on the availability of unpublished data or statistical analyses may be obtained from the district office.

Records of stage or discharge collected by agencies other than the Geological Survey

Records of stage or discharge not published by the Geological Survey were collected in New Jersey at 30 sites during the water years October 1960 to current year by the following agencies: records at 4 sites were collected by the North Jersey District Water Supply Commission; at 14 sites by Passaic County; at 1 site by the National Weather Service; at 3 sites by the National Ocean Survey; at 3 sites by the Corps of Engineers; and 5 sites by Delaware River Joint Toll Bridge Commission. The National Water Data Exchange, Water Resources Division, U.S. Geological Survey, National Center, Reston, VA 22092, maintain an index of such sites. Information on records available at specific sites can be obtained upon request.

EXPLANATION OF WATER-QUALITY RECORDS

Collection and examination of data

Water samples for analyses usually are collected at or near gaging stations. The discharge records at these stations are used in conjunction with the computations of the chemical constituents and sediment loads.

The data in this report include a description of the sampling station and tabulations of the samples analyzed. The description of the sampling station gives the location, drainage area, periods of record for the water-quality data, extremes of the pertinent data, and general remarks. For ground-water sampling stations, no descriptive statements are presented. However, the well number, date of sampling, and other pertinent data are given in the table containing the chemical analyses of ground water.

Water-quality information is presented for chemical, biological, and microbiological quality, water temperature, and fluvial sediment. Chemical quality includes the concentrations of individual constituents and certain properties such as hardness, specific conductance, and pH. The biological information may include qualitative and quantitative analyses of plankton, bottom organisms, and particulate inorganic and amorphous matter present. Microbiological information includes quantitative identifications of certain bacteriological indicator organisms. Water-temperature data represent once-daily observations except for stations where a water-quality noncontinuous-digital monitor furnishes hourly temperature readings that provide daily maximum, minimum, and mean temperature data summaries. Fluvial-sediment information is given for suspended-sediment discharges and concentrations and for particle-size distribution of suspended sediment.

Prior to the 1968 water year, data for chemical constituents and concentrations of suspended sediment were reported in parts per million (ppm) and water temperatures were reported in degrees Fahrenheit (°F). In October 1967, the U.S. Geological Survey began reporting data for chemical constituents and concentrations of suspended sediment in milligrams per liter (mg/L) and water temperatures in degrees Celsius (°C). In waters with a density of 1.000 g/ml (grams per milliliter), parts per million and milligrams per liter can be considered equal. In waters with a density greater than 1.000 g/ml, values in parts per million should be multiplied by the density to convert to milligrams per liter. Temperatures reported in degrees Celsius may be converted to degrees Fahrenheit by using Table 1 below.

Table 1.--Degrees Celsius (°C) to degrees Fahrenheit (°F)* (Temperature reported to nearest 0.5°C)

°C	°F	°C	°F	°C	°F	°C	°F	°C	°F
0.0	32	10.0	50	20.0	68	30.0	86	40.0	104
0.5	33	10.5	51	20.5	69	30.5	87	40.5	105
1.0	34	11.0	52	21.0	70	31.0	88	41.0	106
1.5	35	11.5	53	21.5	71	31.5	89	41.5	107
2.0	36	12.0	54	22.0	72	32.0	90	42.0	108
2.5	36	12.5	54	22.5	72	32.5	90	42.5	108
3.0	37	13.0	55	23.0	73	33.0	91	43.0	109
3.5	38	13.5	56	23.5	74	33.5	92	43.5	110
4.0	39	14.0	57	24.0	75	34.0	93	44.0	111
4.5	40	14.5	58	24.5	76	34.5	94	44.5	112
5.0	41	15.0	59	25.0	77	35.0	95	45.0	113
5.5	42	15.5	60	25.5	78	35.5	96	45.5	114
6.0	43	16.0	61	26.0	79	36.0	97	46.0	115
6.5	44	16.5	62	26.5	80	36.5	98	46.5	116
7.0	45	17.0	63	27.0	81	37.0	99	47.0	117
7.5	45	17.5	63	27.5	81	37.5	99	47.5	117
8.0	46	18.0	64	28.0	82	38.0	100	48.0	118
8.5	47	18.5	65	28.5	83	38.5	101	48.5	119
9.0	48	19.0	66	29.0	84	39.0	102	49.0	120
9.5	49	19.5	67	29.5	85	39.5	103	49.5	121

°C = 5/9 (°F - 32) or °F = 9/5 (°C) + 32.

In October 1968, the Geological Survey began reporting many of the chemical constituents as well as the minor elements in micrograms per liter instead of milligrams per liter. (See "Definitions of Terms," and table for converting Inch-pound Units to International System Units, inside back cover).

Most methods for collecting and analyzing water samples to determine the kinds and concentrations of solutes are described in the U.S. Geological Survey Techniques of Water-Resources Investigations listed at the end of this section. Analysis of pesticides, herbicides, and organic substances in water are described by Goerlitz and Brown. The collection and analysis of aquatic, biological and microbiological samples are described by Greeson and others.

One sample can define adequately the water quality at a given time if the mixture of solutes throughout the stream cross section is homogeneous. However, the concentration of solutes at different locations in the cross section may vary widely with different rates of water discharge, depending on the source of material and the turbulence and mixing of the stream. Some streams must be sampled through many vertical sections to obtain a representative sample needed for an accurate mean concentration and for use in calculating load.

Chemical-quality data published in this report are considered to be the most representative values available for the stations listed. The values reported represent water-quality conditions at the time of sampling as much as possible, consistent with available sampling techniques and methods of analysis.

For chemical-quality stations equipped with noncontinuous-digital monitors, the records consist of daily maximum, minimum, and mean values for each constituent measured and are based upon hourly punches beginning at 0100 hours and ending at 2400 hours for the day of record. More detailed records (hourly values) may be obtained from the U.S. Geological Survey district office (for address see Page IV).

The quality of ground water normally does not change significantly during short periods of time; infrequent sampling and analysis of ground water adequately defines ground-water quality at a given site. Water samples from wells are collected after prepumping the well and are analyzed individually.

Water temperature

Water temperatures are measured at most of the water-quality stations. In addition, water temperatures are taken at time of discharge measurements for surface-water stations. For daily stations, the water temperatures are taken at about the same time each day. Large streams have a small diurnal temperature change; shallow streams may have a daily range of several degrees and may follow closely the changes in air temperature. Some streams may be affected by waste-heat discharges. Influential factors, field measurement, and data representation of temperature are described by Stevens, Ficke and Smoot (1975).

Sediment

Suspended-sediment concentrations are determined from samples collected by using depth-integrating samplers. Samples usually are obtained at several verticals in the cross-section, or a single sample may be obtained at a fixed point and a coefficient applied to determine the mean concentration in the cross section.

During periods of rapidly changing flow or rapidly changing concentration, samples may have been collected more frequently (twice daily or, in some instances, hourly). The published sediment discharges for days of rapidly changing flow or concentration were computed by the subdivided-day method (time-discharge weighted average). Therefore, for those days when the published sediment discharge value differs from the value computed as the product of discharge times mean concentration times 0.0027, the reader can assume that the sediment discharge for that day was computed by the subdivided-day method. For periods when no samples were concentration, samples may have been collected more frequently (twice daily or, in some instances, hourly). The published sediment discharges for days of rapidly changing flow or concentration were computed by the subdivided-day method (time-discharge weighted average). Therefore, for those days when the published sediment discharge value differs from the value computed as the product of discharge times mean concentration times 0.0027, the reader can assume that the sediment discharge for that day was computed by the subdivided-day method. For periods when no samples were collected, daily loads of suspended sediment were estimated on the basis of water discharge, sediment concentrations observed immediately before and after the periods, and suspended-sediment loads for other periods of similar discharge.

At other stations, suspended-sediment samples were collected periodically at many verticals in the stream cross section. Although data collected periodically may represent conditions only at the time of observations, such data are useful in establishing seasonal relations between quality and streamflow in predicting long-term sediment-discharge characteristics of the stream.

In addition to the records of the quantities of suspended sediment, records of the periodic measurements of the particle-size distribution of the suspended sediment are included.

Remark codes for water-quality data

PRINTED OUTPUT	REMARK	PRINTED OUTPUT	REMARK
E	ESTIMATED VALUE	<	ACTUAL VALUE IS KNOWN TO BE LESS THAN THE VALUE SHOWN
>	ACTUAL VALUE IS KNOWN TO BE GREATER THAN THE VALUE SHOWN	ND	MATERIAL SPECIFICALLY ANALYZED FOR BUT NOT DETECTED
K	RESULTS BASED ON COLONY COUNT OUTSIDE THE ACCEPTABLE RANGE (NON-IDEAL COLONY COUNT)		

Publications

Table 2 below, shows the annual series of water-supply papers that give information on quality of surface waters in New Jersey.

Table 2.--Water-supply paper (WSP) numbers, water years, 1945-70

Year	WSP	Year	WSP	Year	WSP
1945	1030	1954	1350	1963	1947
1946	1050	1955	1400	1964	1954
1947	1102	1956	1450	1965	1961
1948	1132	1957	1520	1966	1991
1949	1162	1958	1571	1967	2011
1950	1186	1959	1641	1968	2091
1951	1197	1960	1741	1969	2141
1952	1250	1961	1881	1970	2151
1953	1290	1962	1941		

EXPLANATION OF GROUND-WATER LEVEL RECORDS

Collection of the data

Only ground-water level data from a basic network of observation wells are published herein. This basic network contains observation wells so located that the most significant data are obtained from the fewest wells in the most important aquifers.

Each well is identified by means of (1) a 15-digit number that is based on latitude and longitude (see figure 1) and (2) a local name and a NJ-WRD well number that are provided for local needs.

Water-level measurements in this report are given in feet with reference to land-surface datum (LSD, lsd). Land-surface datum is a datum plane that is approximately at land surface at each well. The altitude of the land-surface datum above NGVD 1929, and the height of the measuring point (MP) above or below land-surface datum is given in each well description.

Measurements are made in many types of wells, under varying conditions of access and at different temperatures, hence, neither the method of measurement nor the equipment can be standardized. At each observation well, however, the equipment and techniques used are those that will ensure that measurements at each well are consistent.

Water-level data in these reports were obtained from water-level recorders, water-level extremes recorders, and from periodic manual measurements. The equipment used at each well is described in the well description under the listing "Instrumentation." Water levels in wells equipped with water-level recorders are reported for every fifth day and the end of each month (eom). Beginning in the 1977 water year, water-level recorders were removed from some wells and replaced by water-level extremes recorders. The extremes are read from these recorders at about three month intervals, but the actual dates of occurrence of the extremes (highest and lowest water levels) are unknown. In these reports the water-level extremes are given with the interim dates together with the manually measured water levels.

Water levels are reported to as many significant figures as can be justified by the local conditions. For example, in a measurement of a depth to water of several hundred feet, the error in determining the absolute value of the total depth to water may be a few tenths of a foot, whearea s the error in determining the net change of water level between successive measurements may be only a hundredth or a few hundredths of a foot. For lesser depths to water the accuracy is greater. All measurements published herein are reported to a hundredth of a foot.

Publications

Table 3 below, shows the series of water-supply papers that give ground-water level data for New Jersey, 1935 to 1974. No water-level data were published in 1975. Beginning in 1976, ground-water level data for New Jersey have been published in these annual water data reports.

Table 3.--Water-supply paper (WSP) numbers, water years, 1935-74

Year	WSP	Year	WSP	Year	WSP
1935	777	1944	1016	1953	1265
1936	817	1945	1023	1954	1321
1937	840	1946	1071	1955	1404
1938	845	1947	1096	1956-57	1537
1939	866	1948	1126	1958-62	1782
1940	906	1949	1156	1963-67	1977
1941	936	1950	1165	1968-72	2140
1942	986	1951	1191	1973-74	2164
1943	986	1952	1221		

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NOTE: When ordering any of these publications, please give the title, book number, chapter number, and "U.S. Geological Survey Techniques of Water-Resources Investigations".

1-D1. *Water temperature--influential factors, field measurement, and data presentation*, by H. H. Stevens, Jr., J. F. Ficke, and G. F. Smoot: USGS--TWRI Book 1, Chapter D1. 1975. 65 pages.

1-D2. *Guidelines for collection and field analysis of ground-water samples for selected unstable constituents*, by W. W. Wood: USGS--TWRI Book 1, Chapter D2. 1976. 24 pages.

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2-E1. *Application of borehole geophysics to water-resources investigations*, by W. S. Keys and L. M. MacCary: USGS--TWRI Book 2, Chapter E1. 1971. 126 pages.

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3-A5. *Measurement of peak discharge at dams by indirect methods*, by Harry Hulsing: USGS--TWRI Book 3, Chapter A5. 1967. 29 pages.

3-A6. *General procedure for gaging streams*, by R. W. Carter and Jacob Davidian: USGS--TWRI Book 3, Chapter A6. 1968. 13 pages.

3-A7. *Stage measurements at gaging stations*, by T. J. Buchanan and W. P. Somers: USGS--TWRI Book 3, Chapter A7. 1968. 28 pages.

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3-B1. *Aquifer-test design, observation, and data analysis*, by R. W. Stallman: USGS--TWRI Book 3, Chapter B1. 1971. 26 pages.

3-B2. *Introduction to ground-water hydraulics, a programed text for self-instruction*, by G. D. Bennett: USGS--TWRI Book 3, Chapter B2. 1976. 172 pages.

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3-C1. *Fluvial sediment concepts*, by H. P. Guy: USGS--TWRI Book 3, Chapter C1. 1970. 55 pages.

3-C2. *Field methods for measurement of fluvial sediment*, by H. P. Guy and V. W. Norman: USGS--TWRI Book 3, Chapter C2. 1970. 59 pages.

3-C3. *Computation of fluvial-sediment discharge*, by George Porterfield: USGS--TWRI Book 3, Chapter C3. 1972. 66 pages.

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4-B3. *Regional analyses of streamflow characteristics*, by H. C. Riggs: USGS--TWRI Book 4, Chapter B3. 1973. 15 pages.

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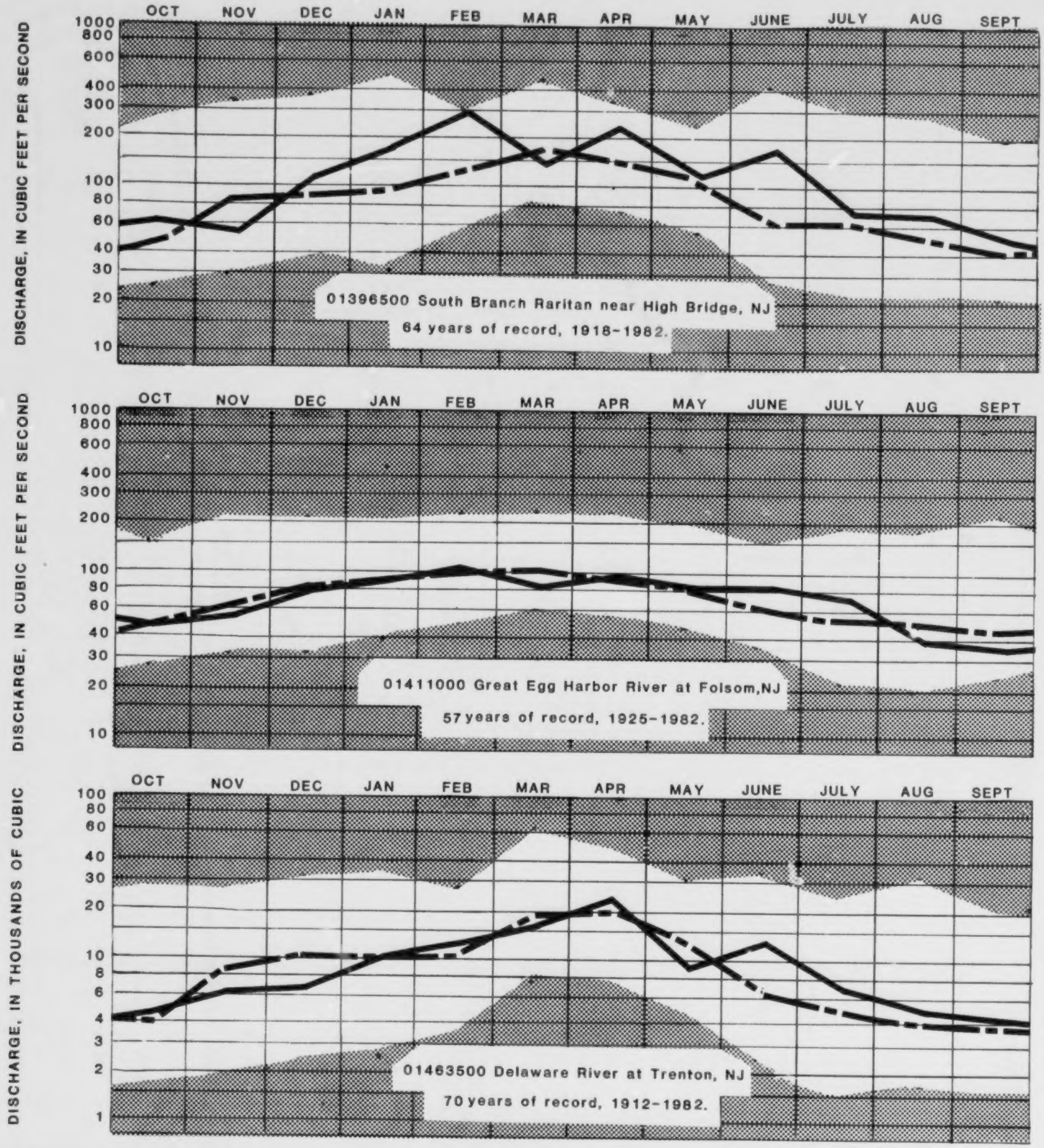


Unshaded area.--Indicates range between highest and lowest mean recorded for the month, prior to 1982 water year.

Dashed line.--Indicates normal (median of the monthly means) for the standard reference period, 1951-1980.

Solid line.--Indicates observed monthly mean flow for the 1982 water year.

FIGURE 2.--MONTHLY STREAMFLOW AT KEY GAGING STATIONS.

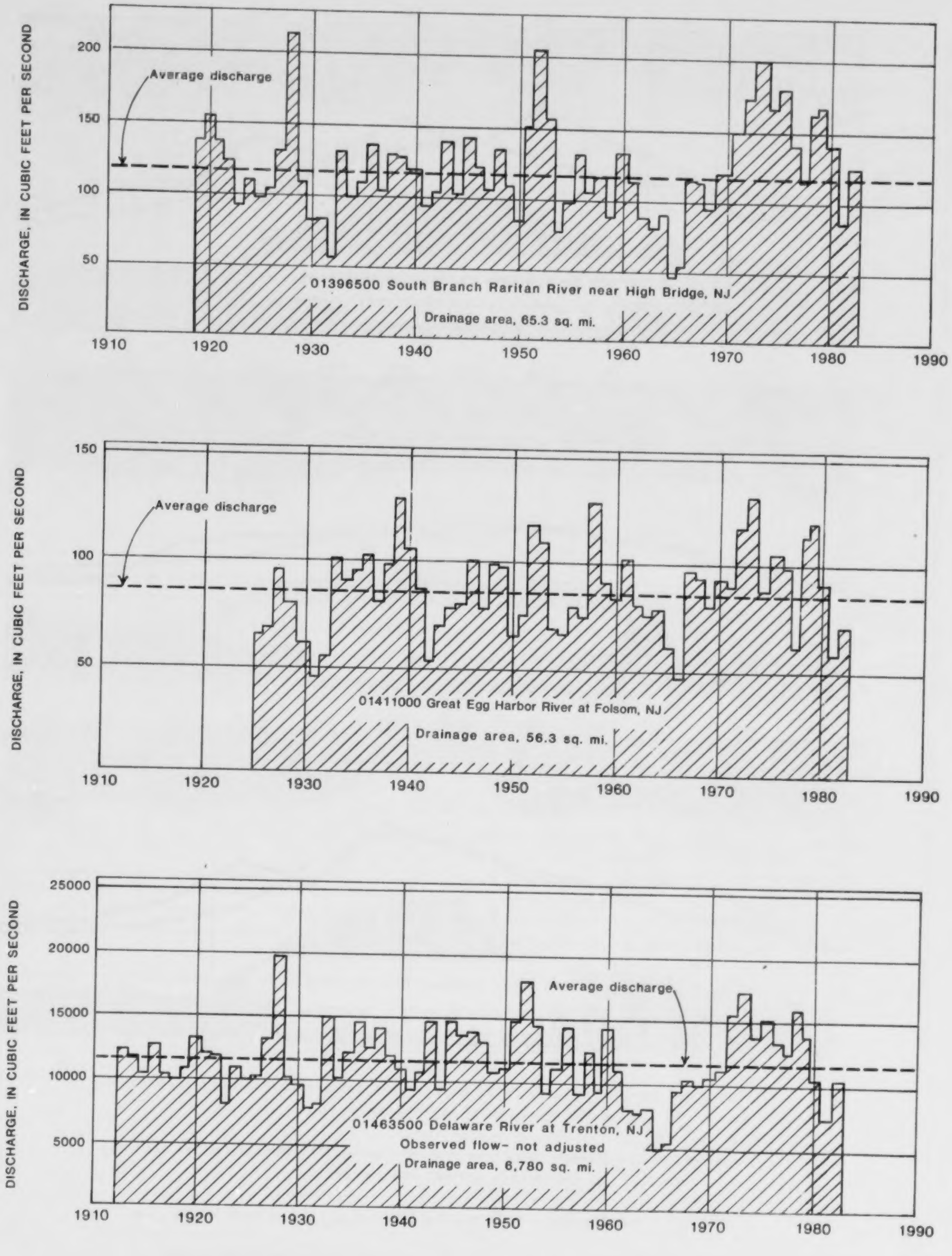
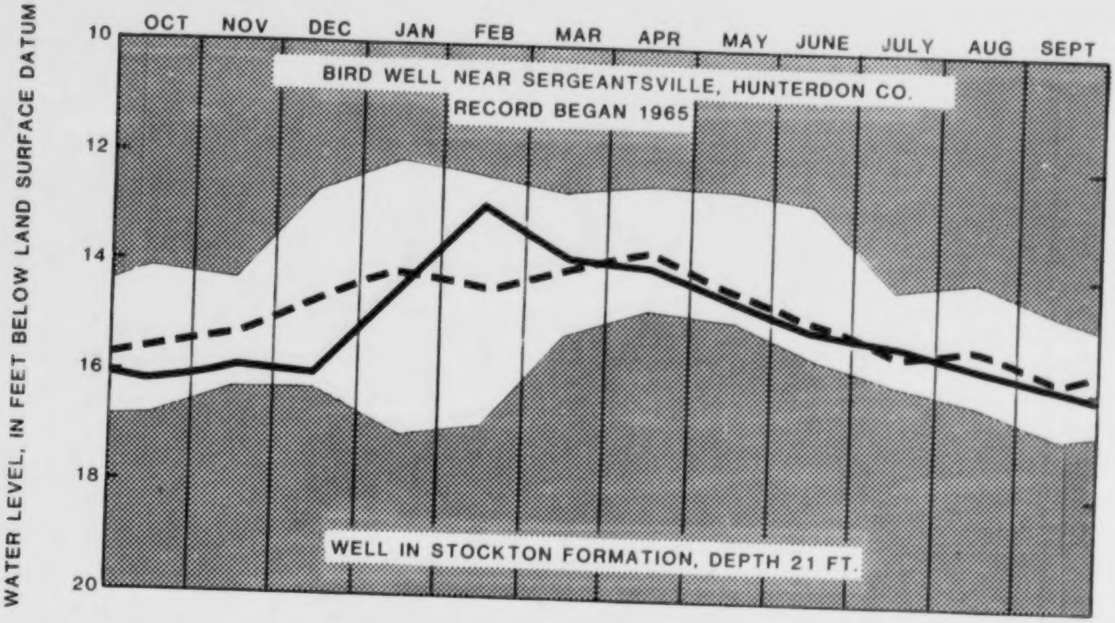
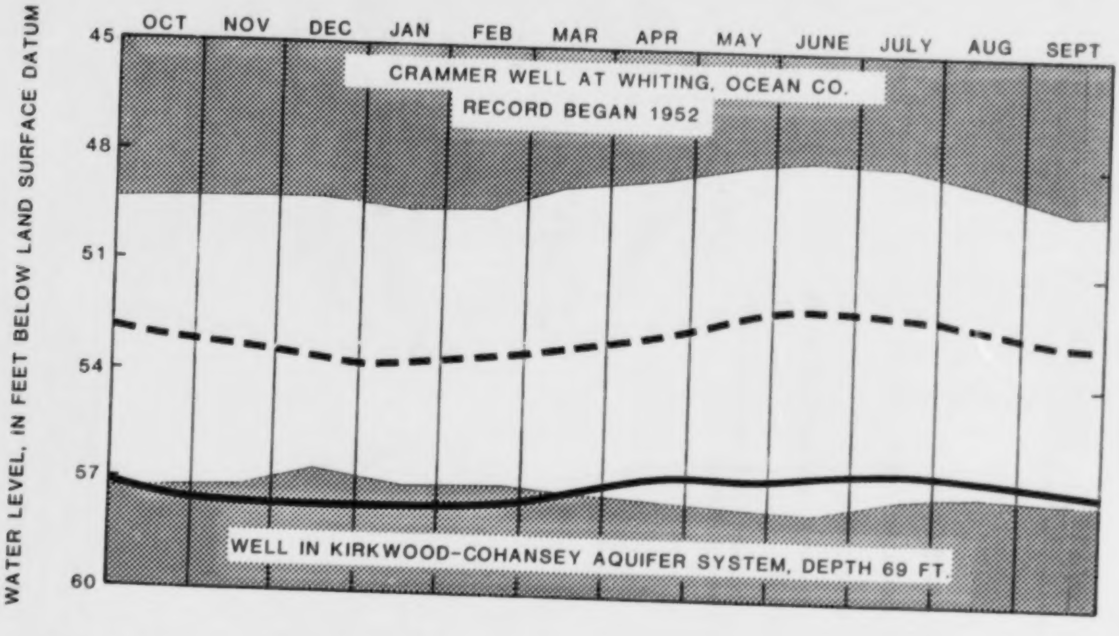


FIGURE 3.--ANNUAL MEAN DISCHARGE AT KEY GAGING STATIONS





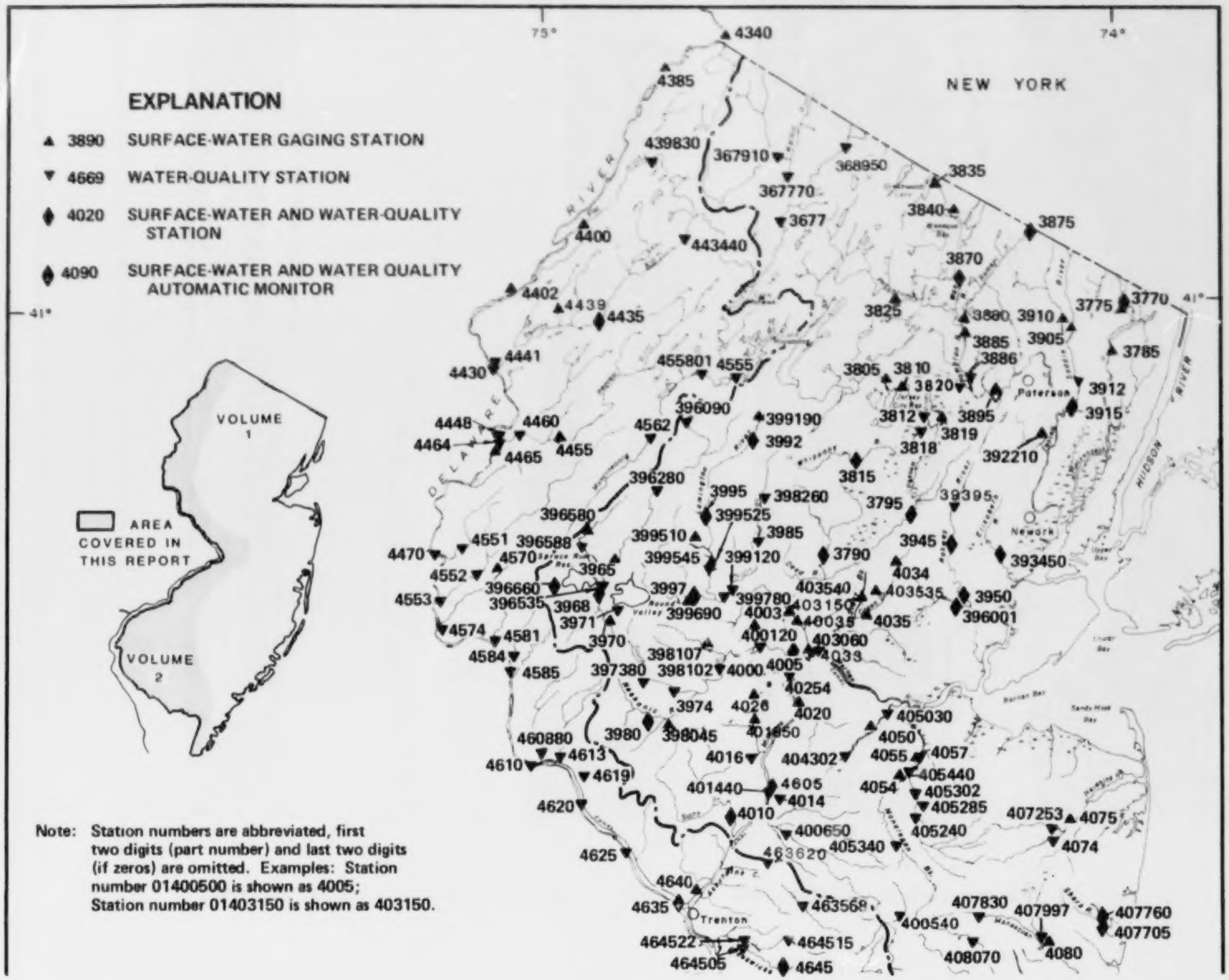
Unshaded area.--Indicates range between highest and lowest recorded monthly minimum water levels, prior to the current year.

Dashed line.--Indicates average of the monthly minimum water levels, prior to current year.

Solid line.--Indicates monthly minimum water level for the current year.

FIGURE 4.--MONTHLY GROUND-WATER LEVELS AT KEY OBSERVATION WELLS.

WATER RESOURCES DATA FOR NEW JERSEY, 1982



EXPLANATION
▲ 3890 SURFACE-WATER GAGING STATION
▼ 4669 WATER-QUALITY STATION
◆ 4020 SURFACE-WATER AND WATER-QUALITY STATION
◆ 4090 SURFACE-WATER AND WATER QUALITY AUTOMATIC MONITOR
AREA COVERED IN THIS REPORT
VOLUME 1
VOLUME 2
75°
74°
41°
NEW YORK
DELAWARE RIVER
HUDSON RIVER
Paterson
Newark
Trenton
4340
4385
439830
367910
368950
3835
367770
3840
3677
3875
4400
443440
3870
4402
4439
4435
3825
3880
3910
3775
3770
3785
3885
3905
4430
4441
455801
4555
3805
3810
3886
3820
3912
3915
4448
4464
4460
4465
4455
4562
396090
399190
3992
3812
3895
3819
3818
392210
3815
396280
3995
398260
399525
3795
39395
396580
399510
3985
3945
4470
4551
396588
399545
399120
3790
393450
4552
4570
3965
4034
4553
396660
396535
3968
3997
399690
399780
403540
403150
403535
3950
396001
3971
4003
40035
4035
4574
4581
3970
400120
403060
4584
4585
398107
397380
398102
4000
4005
4033
40254
3974
4026
4020
405030
460880
3980
398045
401650
4050
4610
4613
4016
404302
4055
4057
4619
401440
4605
4054
405440
405302
4014
405285
4620
4010
400650
407253
4075
405240
405340
4074
4625
463620
4640
4635
463568
407830
400540
407997
407760
407705
464522
464515
464505
4645
408070
4080

Note: Station numbers are abbreviated, first two digits (part number) and last two digits (if zeros) are omitted. Examples: Station number 01400500 is shown as 4005; Station number 01403150 is shown as 403150.

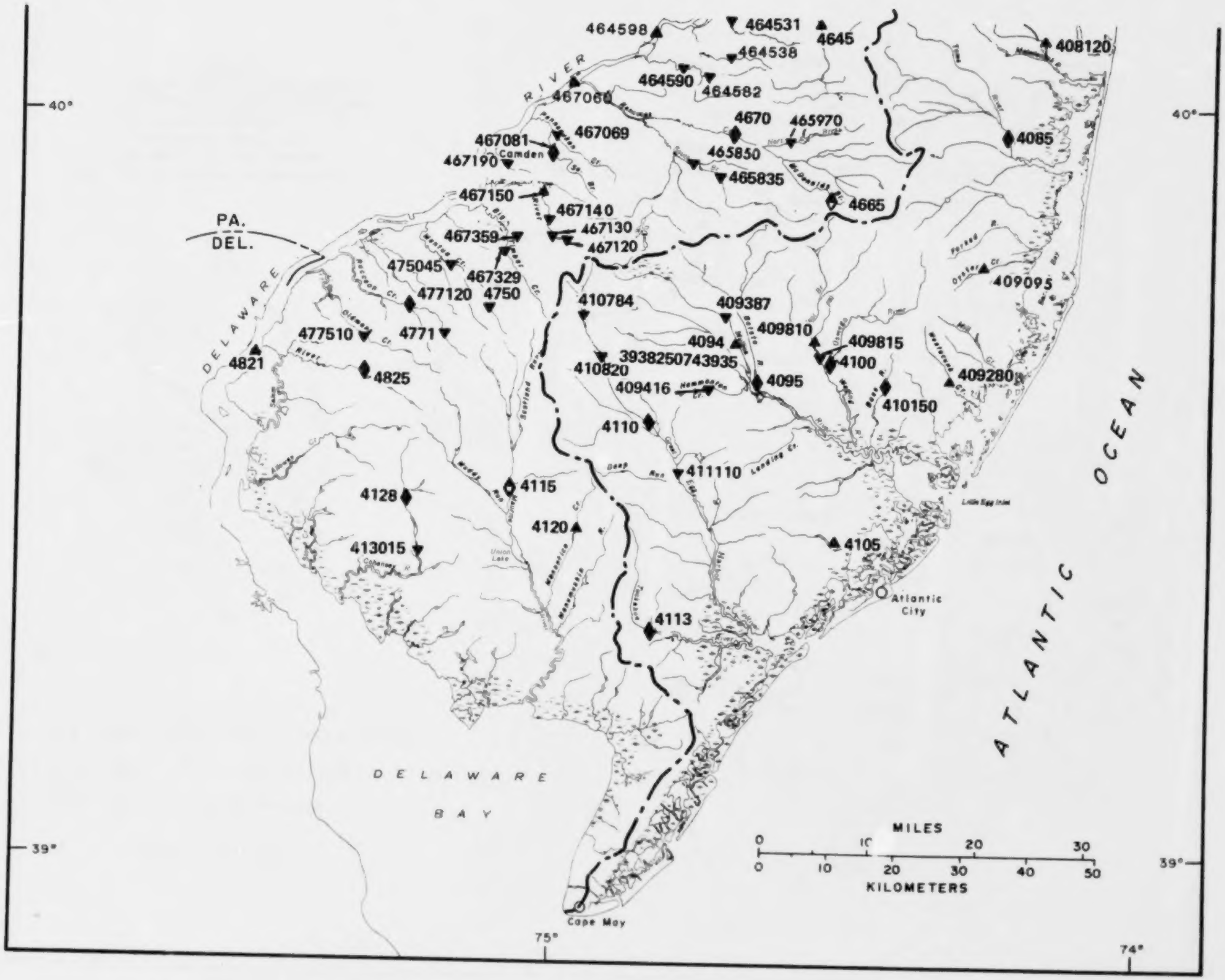
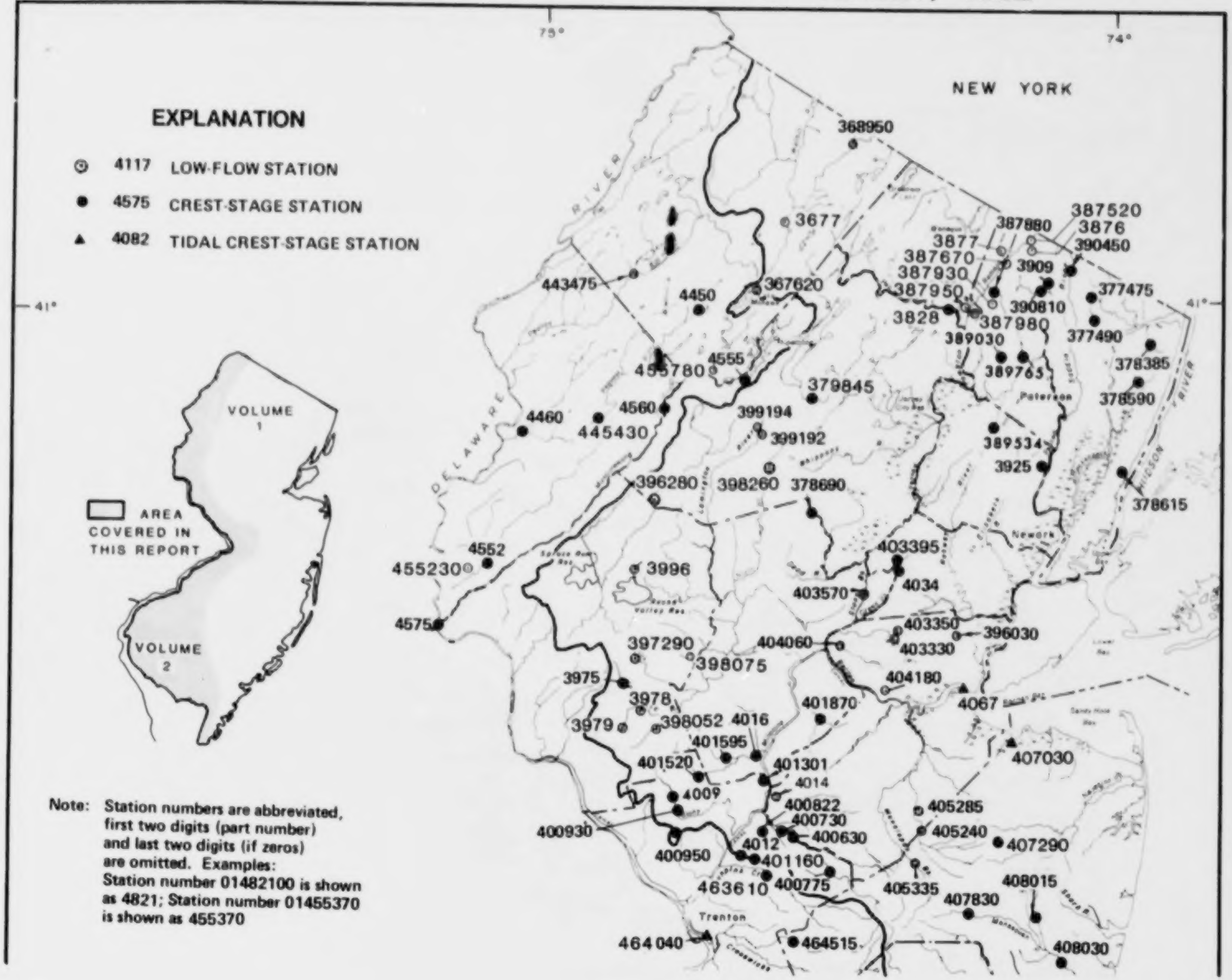

40°
39°
75°
74°
PA.
DEL.
DELAWARE
RIVER
DELAWARE BAY
ATLANTIC OCEAN
Camden
Atlantic City
Cape May
Little Egg Inlet
464598
464531
4645
408120
464538
464590
464582
467060
4670
465970
467081
467069
4085
467190
465850
465835
467150
4665
467140
467130
467359
467120
475045
467329
409095
477120
4750
410784
409387
477510
4771
409810
409815
4821
4094
4100
3938250743935
4825
410820
409280
409416
4095
410150
4110
411110
4115
4128
4120
4105
413015
4113
MILES
0
10
20
30
0
10
20
30
40
50
KILOMETERS

Figure 5.--Location of surface-water gaging stations and water-quality stations.

WATER RESOURCES DATA FOR NEW JERSEY, 1982


EXPLANATION
⊙ 4117 LOW-FLOW STATION
● 4575 CREST-STAGE STATION
▲ 4082 TIDAL CREST-STAGE STATION
AREA COVERED IN THIS REPORT
VOLUME 1
VOLUME 2
NEW YORK
75°
74°
41°
41°
DELAWARE RIVER
HUDSON RIVER
Paterson
Newark
Trenton
368950
3677
367620
443475
4450
4555
455780
4560
4460
445430
379845
399194
399192
396280
398260
378690
4552
455230
4575
3996
397290
398075
3975
3978
3979
398052
4016
401595
401520
4009
400930
400950
4012
401160
463610
400775
464040
464515
401870
401301
4014
400822
400730
400630
403395
4034
403570
404060
403350
403330
396030
404180
4067
407030
405285
405240
407290
405335
407830
408015
408030
387520
3876
390450
387880
3877
387670
3909
387930
387950
390810
3828
387980
389030
377475
377490
389765
378385
378590
389534
3925
378615

Note: Station numbers are abbreviated, first two digits (part number) and last two digits (if zeros) are omitted. Examples: Station number 01482100 is shown as 4821; Station number 01455370 is shown as 455370

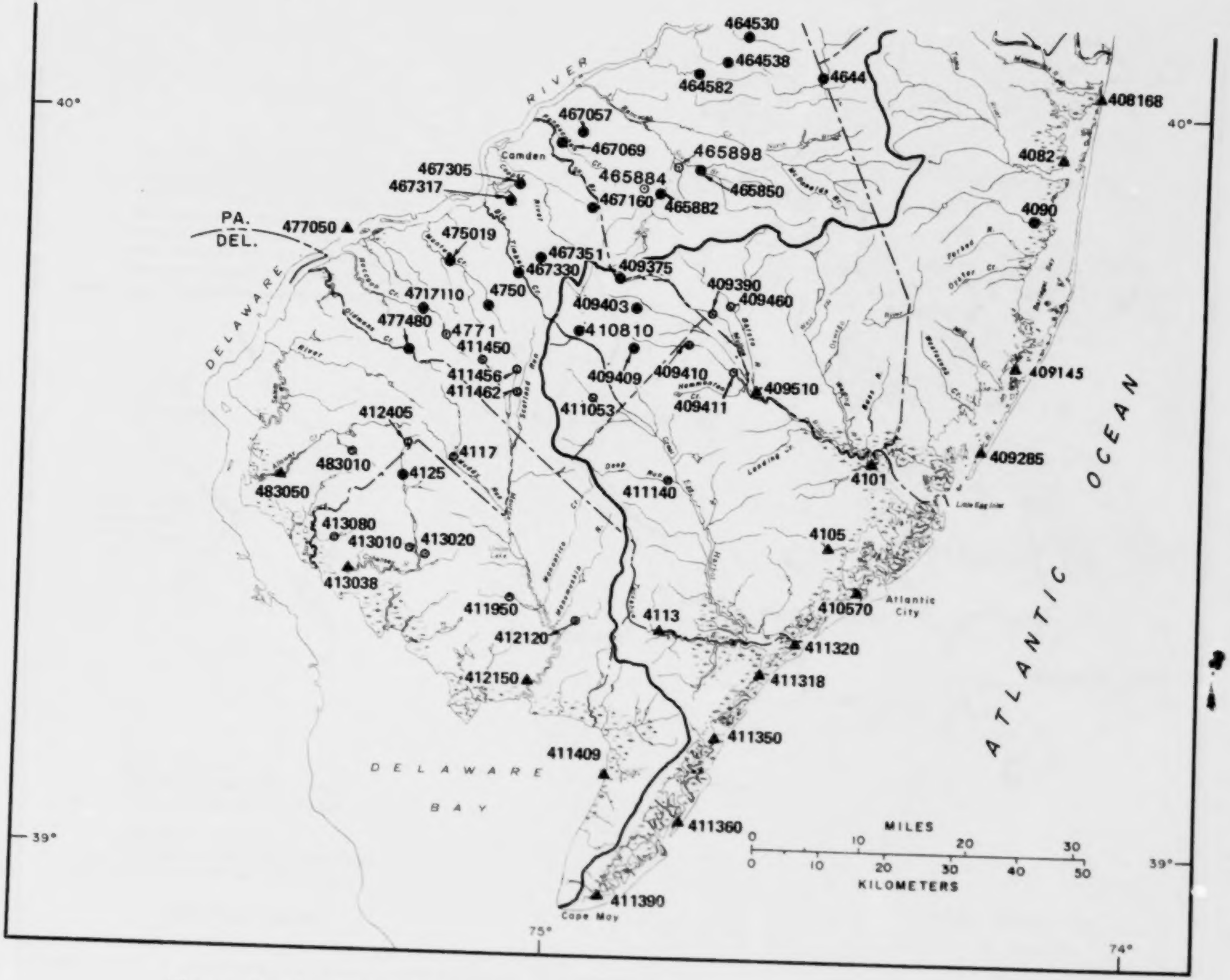

464530
464538
464582
4644
408168
40°
RIVER
467057
467069
Camden
465898
465884
465850
465882
467160
467305
467317
4082
4090
PA.
DEL.
477050
475019
467351
467330
409375
409390
409460
4717110
477480
4750
409403
4771
410810
411450
409409
409410
411456
411462
411053
409411
409510
409145
DELAWARE
412405
483010
4117
4125
483050
411140
4101
409285
Little Egg Inlet
OCEAN
413080
413010
413020
413038
4105
ATLANTIC
411950
412120
4113
410570
Atlantic City
411320
412150
411318
411350
411409
DELAWARE BAY
39°
411360
MILES
0
10
20
30
0
10
20
30
40
50
KILOMETERS
411390
Cape May
75°
74°

Figure 6.--Location of low-flow and crest-stage partial record stations.

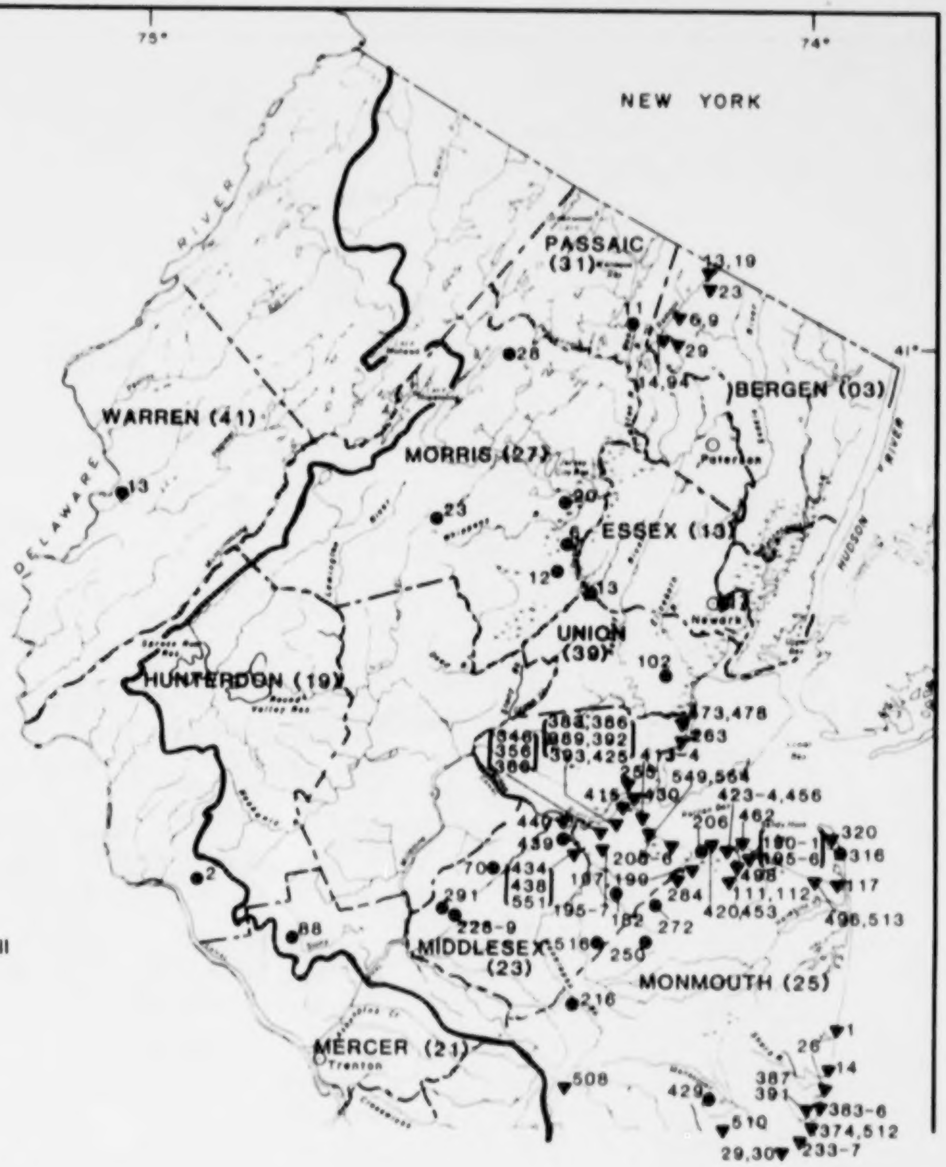
WATER RESOURCES DATA FOR NEW JERSEY, 1982

EXPLANATION

▼626 LOCATION OF WELLS SAMPLED FOR WATER-QUALITY ANALYSIS AND WELL NUMBER.

●570 LOCATION OF WATER-LEVEL OBSERVATION WELLS AND WELL NUMBER.

VOLUME 1
VOLUME 2
AREA COVERED IN THIS REPORT


75°
74°
41°
41
NEW YORK
DELAWARE RIVER
HUDSON RIVER
PASSAIC (31)
BERGEN (03)
WARREN (41)
MORRIS (27)
ESSEX (13)
UNION (39)
HUNTERDON (19)
MIDDLESEX (23)
MONMOUTH (25)
MERCER (21)
Trenton
Paterson
Newark
13,19
23
6,9
29
11
28
14,94
13
23
20
8
12
13
102
2
88
173,478
263
346
356
366
384,386
389,392
393,425
413-4
255
549,564
415
430
423-4,456
440
439
206
462
320
180-1
316
205-6
195-6
498
70
434
438
551
197
199
284
111,112
117
291
226-9
195-7
182
272
420,453
496,513
516
250
216
1
26
14
387
391
383-6
374,512
233-7
508
429
510
29,30

Note: The well numbers with county prefixes constitute the NJ-WRD well number for each well. The county codes are given in parentheses with the county names. Example: NJ-WRD well number 05-0570 is shown as well 570 in county 05 .

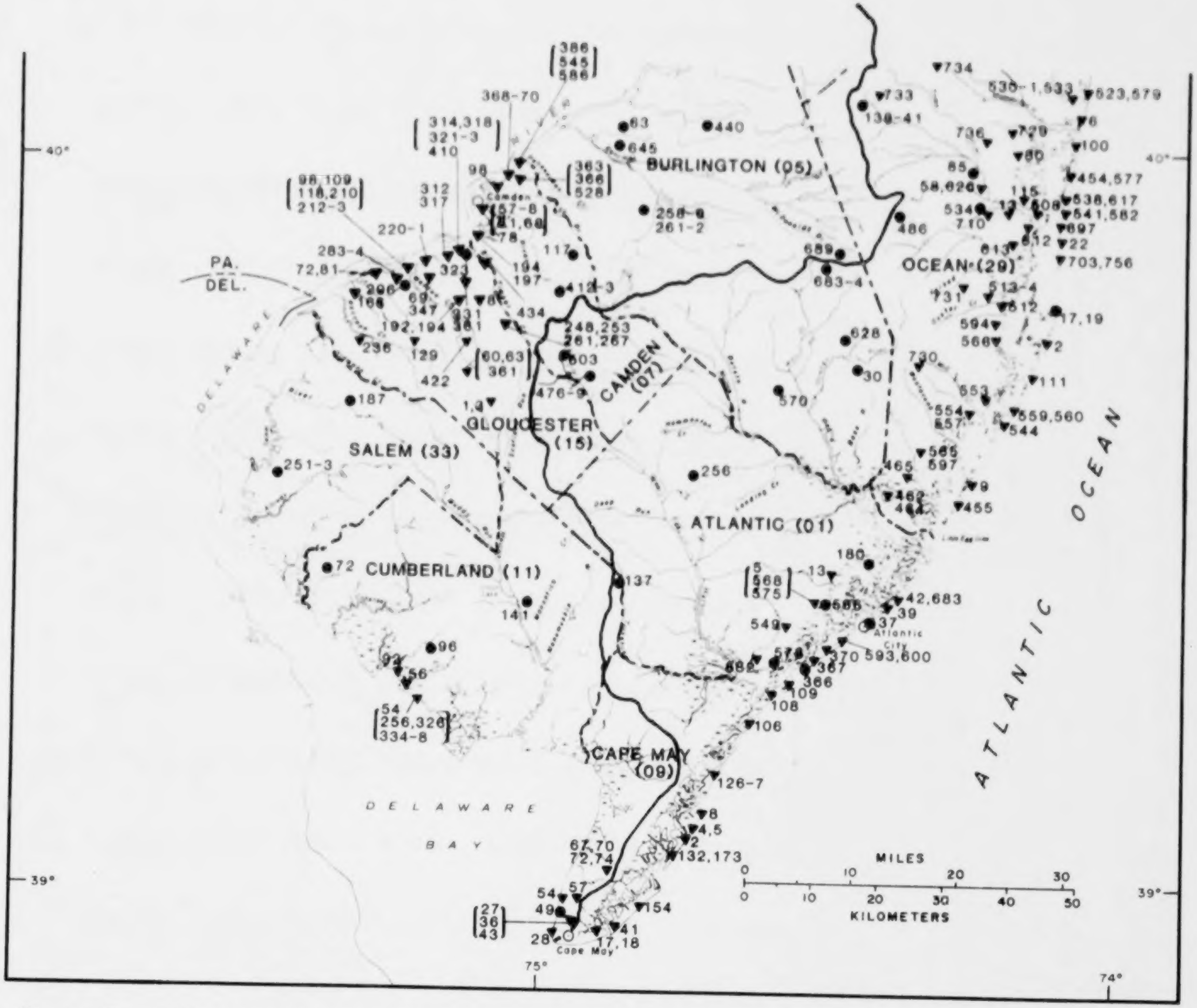

PA.
DEL.
DELAWARE
BURLINGTON (05)
OCEAN (29)
CAMDEN (07)
GLOUCESTER (15)
SALEM (33)
ATLANTIC (01)
CUMBERLAND (11)
CAPE MAY (09)
Camden
Atlantic City
Cape May
DELAWARE BAY
ATLANTIC OCEAN
40°
39°
75°
74°
MILES
0
10
20
30
0
10
20
30
40
50
KILOMETERS

Figure 7. -- Map showing location of ground-water quality stations and observation wells.

01411500 MAURICE RIVER AT NORMA, NJ
(National stream quality accounting network station)

LOCATION.--Lat 39°29'42", long 75°04'38", Salem County, Hydrologic Unit 02040206, on right bank just upstream from Almond Road Bridge at Norma, and 0.8 mi (1.3 km) downstream from Blackwater Branch.

DRAINAGE AREA.--112 mi² (290 km²) revised.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1932 to current year. Monthly discharge only for December 1933, published in WSP 1302.

REVISED RECORDS.--WSP 1382: 1933. WDR NJ-79-1: 1967(P).

GAGE.--Water-stage recorder. Concrete control since Dec. 27, 1937. Datum of gage is 46.94 ft (14.307 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Water-discharge records good. Occasional regulation by ponds above station.

AVERAGE DISCHARGE.--50 years, 167 ft³/s (4.729 m³/s), 20.07 in/yr (510 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,360 ft³/s (208 m³/s) Sept. 2, 1940, gage height, 8.72 ft (2.658 m), from rating curve extended above 3,000 ft³/s (85 m³/s); minimum daily, 23 ft³/s (0.65 m³/s) Sept. 8, 1964, July 2, Sept. 7, 11-13, 1966.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 366 ft³/s (10.4 m³/s) Apr. 30, gage height, 3.40 ft (1.036 m), no peak above base of 380 ft³/s (10.8 m³/s); minimum, 41 ft³/s (1.16 m³/s) Sept. 19, 20, gage height, 2.36 ft (0.719 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	68	102	82	125	147	133	143	354	213	140	81	64
2	79	94	105	130	154	131	144	315	227	127	78	62
3	82	89	108	127	201	129	149	273	205	123	74	64
4	79	86	110	179	230	124	170	214	178	133	70	66
5	73	84	110	206	239	128	162	194	155	124	67	64
6	70	62	108	205	247	133	178	177	183	112	71	60
7	68	71	104	205	243	159	193	162	145	101	70	57
8	63	77	103	200	225	197	191	154	146	97	75	55
9	61	78	99	188	208	200	194	151	138	94	78	53
10	60	79	94	150	202	203	199	144	126	88	79	51
11	61	78	88	160	190	204	189	139	115	85	76	49
12	61	77	85	138	176	199	177	133	114	84	74	48
13	60	75	82	126	163	190	166	135	131	86	71	48
14	58	74	84	126	156	177	157	133	211	84	70	47
15	58	75	138	126	150	168	149	128	229	82	69	47
16	59	97	199	122	147	166	137	119	310	82	68	47
17	60	88	197	119	145	171	130	103	299	79	67	46
18	59	98	191	115	146	160	178	95	261	76	66	44
19	66	96	188	112	153	149	175	104	224	74	66	43
20	62	96	178	112	163	141	170	108	186	78	67	52
21	61	93	163	114	172	133	168	121	146	87	68	59
22	61	91	149	112	181	131	162	129	128	81	69	67
23	61	91	140	122	182	126	152	150	114	107	72	71
24	71	88	133	145	170	123	144	208	108	121	76	66
25	75	83	127	142	159	124	135	182	107	152	80	64
26	141	83	123	139	148	121	147	164	97	128	82	61
27	121	83	121	133	141	117	195	137	87	95	80	67
28	133	81	118	127	137	115	248	138	83	84	78	67
29	128	80	116	122	---	112	320	148	92	90	74	65
30	124	79	111	118	---	107	361	151	124	86	70	63
31	114	---	109	122	---	114	---	183	---	84	66	---
TOTAL	2397	2528	3863	4367	4975	4585	5383	5046	4838	3064	2252	1717
MEAN	77.3	84.3	125	141	178	148	179	163	161	98.8	72.6	57.2
MAX	141	102	199	206	247	204	361	354	310	152	82	71
MIN	58	62	82	112	137	107	130	95	83	74	66	43
CFSM	.69	.75	1.12	1.26	1.59	1.32	1.60	1.46	1.44	.88	.65	.51
IN.	.80	.84	1.28	1.45	1.65	1.52	1.79	1.68	1.61	1.02	.75	.57

CAL YR 1981 TOTAL 37099 MEAN 102 MAX 235 MIN 58 CFSM .91 IN 12.32
WTR YR 1982 TOTAL 45015 MEAN 123 MAX 361 MIN 43 CFSM 1.10 IN 14.95

01411500 MAURICE RIVER AT NORMA, NJ--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1923, 1953, 1960-62, 1965 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: January 1980 to current year.
WATER TEMPERATURES: October 1966 to January 1968 (once daily), January 1980 to current year.
SUSPENDED-SEDIMENT DISCHARGE: February 1965 to January 1968.

INSTRUMENTATION.--Water-quality monitor since January 1980.

REMARKS.--Missing continuous water-quality records are the result of malfunction of the instrument.

EXTREMES FOR PERIOD OF RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 119 micromhos Jan. 24, 1982; minimum, 52 micromhos June 16, 1982.
WATER TEMPERATURE: Maximum, 28°C July 21, 1980; minimum 0.0°C on several days during winter months.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 119 micromhos Jan. 24; minimum, 52 micromhos June 16.
WATER TEMPERATURES: Maximum, 27.5°C July 19; minimum, 0.0°C on several days in January.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD-NESS (MG/L AS CACO3)
NOV 18...	1135	100	73	6.2	9.0	1.0	9.8	3.0	K11	330	17
JAN 13...	0945	125	86	6.0	1.5	1.0	12.8	2.0	K6	51	21
MAR 17...	0930	174	77	6.2	8.0	1.0	10.5	1.4	26	1200	19
MAY 20...	1100	110	75	6.5	19.5	1.5	7.6	--	60	2800	18
JUL 01...	1005	144	60	6.5	22.0	1.7	6.6	--	130	>240	15
SEP 08...	1125	54	71	6.8	19.0	1.0	8.0	.3	<20	450	17

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)
NOV 18...	3.5	2.0	5.0	1.8	5.0	8.7	8.2	<.1	6.4	60
JAN 13...	4.3	2.6	6.1	1.6	4.0	13	9.1	<.1	7.5	62
MAR 17...	4.0	2.3	5.5	1.7	4.0	13	7.9	<.1	4.3	57
MAY 20...	3.7	2.2	5.3	1.4	7.0	8.0	8.2	<.1	3.7	57
JUL 01...	3.2	1.8	4.7	1.2	6.0	7.0	7.6	<.1	5.2	62
SEP 08...	3.3	2.0	5.3	1.5	8.0	7.0	8.2	.2	3.7	54

DATE	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
NOV 18...	4	1.1	100	1.6	.020	.29	.040	.020	<.010	3.8
JAN 13...	1	.34	100	1.6	.030	.41	<.010	<.010	<.010	6.7
MAR 17...	3	1.4	100	1.4	.030	.27	.030	<.020	.020	--
MAY 20...	--	--	--	1.5	.080	.40	.030	<.010	<.010	--
JUL 01...	2	.78	100	.89	.050	.50	.110	.030	<.010	--
SEP 08...	1	.15	100	1.5	.040	.40	.020	.010	<.010	2.8

01411500 MAURICE RIVER AT NORMA, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	ARSENIC TOTAL (UG/L AS AS)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA)	BARIUM, DIS-SOLVED (UG/L AS BA)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, TOTAL RECOV-ERABLE (UG/L AS CO)
NOV 18...	1135	180	160	100	63	<1	<1	10	<10	4
JAN 13...	0945	290	280	100	74	2	1	10	<10	2
MAY 20...	1100	200	200	100	77	1	1	10	<10	2
SEP 08...	1125	220	190	100	63	1	<1	10	<10	4

DATE	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)
NOV 18...	<1	7	3	350	83	6	2	20	18	<.1
JAN 13...	1	10	2	280	230	7	2	40	40	<.1
MAY 20...	2	4	4	810	88	4	3	40	27	.2
SEP 08...	<1	5	5	400	120	5	3	20	16	.2

DATE	MERCURY DIS-SOLVED (UG/L AS HG)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, TOTAL (UG/L AS SE)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG)	SILVER, DIS-SOLVED (UG/L AS AG)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, DIS-SOLVED (UG/L AS ZN)
NOV 18...	<.1	4	3	<1	<1	<1	<1	50	19
JAN 13...	<.1	2	<1	<1	<1	<1	<1	70	23
MAY 20...	.2	9	8	<1	<1	<1	<1	20	4
SEP 08...	.2	5	4	<1	<1	<1	<1	10	8

01411500 MAURICE RIVER AT NORMA, NJ--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	77	75	76	86	76	81	81	77	80	80	76	78
2	77	74	76	85	77	83	81	77	80	79	77	78
3	77	71	73	82	76	80	79	77	78	80	77	79
4	75	73	74	84	77	82	80	76	78	77	70	73
5	74	73	74	83	76	80	80	75	77	76	73	74
6	75	74	74	86	76	82	79	76	78	76	75	76
7	75	73	74	85	77	81	80	78	79	76	75	75
8	75	73	74	83	77	80	80	79	79	77	74	76
9	79	75	76	81	76	79	81	77	79	81	78	80
10	107	76	89	81	76	79	81	77	79	86	78	82
11	97	76	85	79	78	79	81	77	79	85	79	82
12	77	73	75	80	78	79	81	77	79	89	81	86
13	75	72	74	80	78	79	81	77	79	89	86	88
14	75	72	73	79	75	77	81	77	79	87	85	86
15	76	73	74	79	76	78	78	72	75	87	85	86
16	79	73	75	78	75	77	83	74	75	86	85	86
17	77	73	75	77	75	76	90	77	81	86	85	86
18	79	73	75	78	74	76	78	76	77	87	85	86
19	77	73	75	78	75	77	81	75	78	87	85	86
20	75	74	74	78	76	77	86	77	83	85	84	85
21	75	74	75	77	73	76	90	79	88	87	84	85
22	76	74	75	78	75	77	90	87	88	86	84	85
23	75	74	75	79	77	78	89	87	88	106	83	87
24	76	73	74	79	77	78	88	78	85	119	90	102
25	74	71	73	79	78	78	85	78	83	89	83	86
26	76	70	73	81	77	79	84	78	82	89	85	87
27	78	74	75	81	77	80	83	77	80	87	84	86
28	79	73	75	80	77	79	85	78	81	89	87	88
29	75	73	74	83	77	80	84	77	81	89	87	88
30	77	71	75	81	77	80	80	77	79	89	87	88
31	82	74	77	---	---	---	80	78	79	91	87	89
MONTH	107	70	75	86	73	79	90	72	80	119	70	84

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	87	84	85	84	76	82	75	72	74	---	---	---
2	84	76	82	83	76	80	75	73	74	---	---	---
3	78	71	74	83	75	81	73	71	72	---	---	---
4	74	71	73	82	75	80	72	69	70	---	---	---
5	70	68	69	79	75	77	72	71	71	---	---	---
6	69	67	69	79	75	77	72	67	70	---	---	---
7	74	68	71	79	74	77	70	67	69	---	---	---
8	74	72	73	75	72	73	70	65	69	---	---	---
9	76	72	74	77	74	76	70	66	69	---	---	---
10	76	70	72	76	74	75	70	67	68	---	---	---
11	76	72	73	75	73	74	72	70	72	---	---	---
12	75	73	74	79	75	77	71	68	69	---	---	---
13	75	73	74	79	76	78	72	69	71	---	---	---
14	79	73	76	80	77	78	72	69	71	---	---	---
15	80	74	78	80	78	79	70	69	70	---	---	---
16	79	73	76	80	77	79	71	69	70	---	---	---
17	76	73	75	80	77	79	71	68	70	---	---	---
18	79	73	75	80	78	79	68	62	65	---	---	---
19	77	73	75	81	78	80	66	63	65	---	---	---
20	79	73	75	79	76	78	66	64	65	81	74	75
21	78	74	76	78	76	77	66	64	65	85	75	79
22	78	74	76	78	76	77	67	64	66	75	71	74
23	80	74	76	77	76	77	68	66	67	71	64	69
24	78	74	76	76	75	76	69	66	68	66	63	65
25	81	74	79	76	74	75	---	---	---	69	66	68
26	81	75	78	75	74	75	---	---	---	71	68	70
27	81	74	78	76	75	75	---	---	---	73	71	72
28	82	76	80	77	76	76	---	---	---	72	70	71
29	---	---	---	76	75	75	---	---	---	71	69	70
30	---	---	---	76	75	75	---	---	---	71	68	69
31	---	---	---	77	75	76	---	---	---	69	64	66
MONTH	87	67	75	84	72	77	75	62	69	85	63	71

01411500 MAURICE RIVER AT NORMA, NJ--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOB[illegible] SEPTEMBER 1982

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	65	64	64	71	61	66	74	71	72	72	71	71
2	64	62	63	72	66	71	71	70	71	74	71	72
3	65	62	63	72	65	71	71	68	69	73	71	72
4	65	63	64	73	71	72	71	68	70	73	71	72
5	65	63	64	74	71	72	72	69	70	71	69	70
6	67	63	65	75	71	73	72	70	71	71	70	70
7	66	64	65	78	73	74	72	69	71	71	70	70
8	65	64	65	75	72	74	71	68	69	72	70	71
9	67	65	66	75	73	74	70	68	69	72	71	71
10	67	65	66	76	73	75	70	69	70	73	71	71
11	67	65	66	77	75	76	70	68	69	72	71	72
12	69	66	67	76	73	74	71	68	70	72	71	72
13	69	61	66	76	73	74	69	67	68	73	71	72
14	60	54	59	75	73	74	70	68	69	72	71	72
15	58	54	56	76	74	75	71	69	70	71	70	71
16	56	52	53	77	74	75	72	70	71	72	71	71
17	55	53	54	78	76	77	72	71	72	72	71	71
18	56	54	55	78	76	77	73	71	72	72	70	71
19	57	56	57	77	75	76	72	71	71	73	70	71
20	59	54	57	76	73	75	73	71	72	73	69	71
21	63	59	61	75	73	74	73	71	73	72	70	71
22	63	61	62	74	73	73	71	69	70	70	69	70
23	64	63	64	76	71	73	71	70	71	70	68	69
24	65	63	64	74	71	73	72	70	71	69	68	69
25	64	62	63	72	70	71	70	67	69	70	69	69
26	72	63	65	72	71	71	69	66	68	71	69	70
27	68	65	66	76	71	73	68	66	67	70	69	70
28	69	66	67	76	73	74	69	68	69	70	68	69
29	67	65	66	74	70	72	70	65	68	69	68	69
30	66	60	63	74	70	72	71	70	70	69	68	69
31	---	---	---	77	73	74	72	70	71	---	---	---
MONTH	72	52	63	78	61	73	74	65	70	74	68	71
YEAR	119	52	74									

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	17.5	15.5	16.5	13.0	11.0	12.0	6.0	4.0	4.5	6.0	5.0	5.5
2	17.5	15.5	16.5	13.5	11.5	12.5	7.5	6.5	7.0	5.0	3.5	4.5
3	15.0	13.5	14.5	13.5	12.0	13.0	7.5	6.5	6.5	4.5	3.5	4.0
4	14.0	12.5	13.5	13.0	11.0	12.0	7.0	6.0	6.5	7.0	4.5	6.0
5	16.0	13.5	14.5	12.5	10.5	12.0	7.0	6.0	7.0	6.5	5.0	6.0
6	16.0	15.0	15.5	14.0	12.0	13.0	6.0	4.0	5.0	5.5	4.0	5.0
7	16.0	14.5	15.0	12.0	9.5	10.5	4.5	4.0	4.5	6.0	5.0	5.5
8	14.5	13.0	14.0	10.0	8.5	9.5	5.5	4.5	5.0	5.0	2.5	4.0
9	13.5	12.0	12.5	10.5	8.0	9.5	5.0	4.0	4.5	3.0	2.0	2.5
10	13.0	11.0	12.0	10.5	9.0	9.5	4.0	3.0	3.5	1.5	.0	.5
11	13.5	11.5	12.5	10.5	9.0	9.5	3.5	2.5	3.0	.5	.0	.0
12	13.0	11.5	12.5	9.5	8.0	8.5	3.5	3.0	3.0	1.5	.5	1.0
13	12.5	11.0	12.0	8.0	7.0	7.5	3.5	2.0	3.0	1.5	1.0	1.5
14	12.5	10.5	11.5	8.5	7.5	8.0	4.0	2.5	3.0	2.0	1.0	1.5
15	13.0	11.0	12.0	9.5	8.0	8.5	4.5	3.5	4.0	2.0	1.0	1.5
16	13.5	11.5	12.5	10.0	9.0	9.5	3.5	2.5	3.0	2.5	.5	1.5
17	13.0	11.5	12.5	9.0	8.0	8.5	3.5	2.0	3.0	1.5	.0	.5
18	13.5	11.0	12.0	9.5	9.0	9.0	3.5	2.5	3.5	1.0	.0	.5
19	13.0	11.5	12.5	9.5	8.0	9.0	2.5	1.5	2.0	2.0	1.0	1.5
20	11.5	10.0	11.0	10.0	8.5	9.0	2.0	1.0	1.5	3.0	1.5	2.0
21	12.5	10.5	11.5	9.0	8.0	8.5	2.5	1.0	1.5	2.0	1.5	2.0
22	13.5	11.5	12.5	7.5	6.5	7.5	3.5	2.5	3.0	2.0	1.0	1.5
23	14.0	13.0	13.5	6.5	5.5	6.0	5.0	3.5	4.0	3.0	1.0	2.0
24	13.5	12.0	12.5	6.0	4.5	5.0	4.5	3.5	4.0	2.5	1.0	2.0
25	12.0	10.5	11.5	5.5	4.5	5.0	4.5	4.0	4.5	2.0	1.0	1.5
26	13.5	12.0	12.5	5.5	4.0	4.5	5.0	3.5	4.0	2.0	1.0	1.5
27	15.0	13.5	14.0	7.5	5.0	6.5	5.5	4.5	5.0	2.0	.5	1.5
28	16.0	14.0	15.0	7.0	6.0	6.5	5.0	4.5	5.0	3.0	1.0	2.0
29	14.5	12.5	13.5	7.0	5.5	6.5	5.5	4.5	5.0	3.5	2.0	2.5
30	12.5	12.0	12.5	5.5	4.5	5.0	4.5	3.5	4.0	4.5	2.0	3.0
31	12.0	11.5	12.0	---	---	---	5.0	3.0	4.0	5.0	4.0	4.5
MONTH	17.5	10.0	13.0	14.0	4.0	8.5	7.5	1.0	4.0	7.0	.0	2.5

01411500 MAURICE RIVER AT NORMA, NJ--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	5.5	4.0	5.0	6.5	3.5	5.0	13.0	9.5	11.5	---	---	---
2	4.5	3.0	4.0	6.5	5.0	6.0	13.0	10.5	11.5	---	---	---
3	4.5	4.0	4.5	6.5	5.5	6.0	12.0	10.5	11.0	---	---	---
4	5.5	4.0	4.5	5.5	4.5	5.0	11.5	8.5	10.5	---	---	---
5	4.5	3.0	4.0	8.0	5.5	6.5	9.5	7.0	8.5	---	---	---
6	4.5	3.0	4.0	6.5	5.5	6.0	8.5	6.0	7.5	---	---	---
7	3.0	1.5	2.5	5.5	5.0	5.0	6.0	3.5	5.0	---	---	---
8	4.0	1.5	3.0	5.5	3.5	4.5	7.0	3.5	5.0	---	---	---
9	4.0	3.0	3.5	6.0	3.0	4.5	5.5	4.5	5.0	---	---	---
10	3.5	2.5	3.0	5.5	3.5	4.5	8.5	4.0	6.0	---	---	---
11	3.5	2.0	3.0	8.0	4.5	6.5	10.0	6.0	8.0	---	---	---
12	4.0	2.0	3.0	11.0	7.5	9.0	11.5	7.5	9.5	---	---	---
13	4.0	3.0	3.5	11.0	9.0	10.0	11.5	9.5	10.5	---	---	---
14	4.5	2.0	3.5	11.5	9.0	10.0	13.5	10.5	12.0	---	---	---
15	6.0	3.0	4.5	10.0	9.0	9.5	14.5	10.5	12.5	---	---	---
16	7.5	5.5	6.5	9.0	8.5	8.5	16.0	11.5	13.5	---	---	---
17	7.5	4.0	6.0	9.0	8.0	8.0	18.0	14.0	16.0	---	---	---
18	4.0	3.5	4.0	10.0	7.5	8.5	17.5	14.5	16.0	---	---	---
19	4.5	4.0	4.0	11.5	8.5	10.0	17.5	13.5	15.0	---	---	---
20	5.5	4.0	5.0	11.0	9.5	10.5	17.0	13.5	15.5	21.5	19.0	20.5
21	5.0	5.0	5.0	10.5	10.0	10.0	16.5	14.5	15.5	20.5	19.5	20.0
22	6.0	4.5	5.0	10.5	9.0	9.5	16.0	12.5	14.0	19.5	17.5	18.5
23	6.5	4.0	5.5	11.0	8.0	9.5	15.5	12.0	14.0	17.5	16.0	17.0
24	6.0	5.5	5.5	11.5	8.5	10.0	17.0	13.0	14.5	16.0	15.0	15.5
25	5.5	3.5	4.5	13.0	9.0	11.0	---	---	---	16.0	15.0	15.5
26	4.0	2.5	3.5	12.5	10.0	11.5	---	---	---	18.5	15.5	17.0
27	4.5	2.5	3.5	10.0	7.5	9.0	---	---	---	19.5	17.0	18.0
28	5.5	3.5	4.5	9.0	6.5	7.5	---	---	---	18.5	17.5	18.0
29	---	---	---	10.0	6.0	8.0	---	---	---	20.0	18.0	19.0
30	---	---	---	10.5	7.0	9.0	---	---	---	22.0	19.5	20.5
31	---	---	---	10.5	9.0	10.0	---	---	---	23.0	21.0	22.0
MONTH	7.5	1.5	4.0	13.0	3.0	8.0	18.0	3.5	11.0	23.0	15.0	18.5

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	22.5	21.0	22.0	23.5	21.5	22.5	24.0	22.0	23.0	20.5	19.0	20.0
2	22.5	21.0	21.5	23.0	20.5	22.0	24.0	22.0	23.0	22.0	20.0	21.0
3	22.0	20.0	21.0	22.5	20.5	21.5	24.5	22.5	23.5	22.5	21.0	21.5
4	20.5	19.5	20.0	22.0	19.5	21.0	24.5	22.5	23.5	21.5	19.0	20.5
5	19.5	18.5	19.0	22.5	20.5	21.5	24.5	23.0	23.5	20.5	18.0	19.5
6	20.0	18.5	19.5	22.5	19.5	21.0	24.0	22.5	23.0	21.0	18.5	20.0
7	19.5	18.5	18.5	23.5	19.5	21.5	23.5	21.0	22.5	20.5	19.0	20.0
8	18.0	17.5	18.0	25.0	21.5	23.5	24.0	21.5	23.0	20.0	18.5	19.0
9	20.0	17.0	18.5	25.5	24.0	24.5	24.5	23.0	23.5	19.5	17.5	18.5
10	20.0	18.0	19.0	25.5	24.0	24.5	25.5	23.5	24.5	20.5	18.0	19.0
11	19.0	18.0	18.5	25.0	23.5	24.0	24.0	22.5	23.5	21.5	19.5	20.5
12	19.0	17.0	18.0	25.5	23.0	24.5	22.5	21.0	21.5	21.0	19.5	20.5
13	17.5	16.0	17.0	26.0	24.0	25.0	22.0	19.5	21.0	21.5	19.0	20.5
14	17.0	15.5	16.5	25.5	23.5	24.5	22.0	19.5	21.0	21.5	19.5	20.5
15	18.5	16.0	17.5	25.0	23.0	24.0	22.0	20.0	21.0	21.5	19.5	20.5
16	20.5	18.0	19.5	25.5	23.0	24.0	22.5	20.5	21.5	21.5	21.0	21.0
17	22.0	20.0	21.0	26.0	23.5	25.0	23.0	21.0	22.0	21.0	19.0	20.0
18	22.5	21.5	22.0	27.0	23.5	25.5	22.5	20.5	21.5	20.0	17.0	18.5
19	22.0	21.0	21.5	27.5	25.0	26.0	23.0	20.5	22.0	19.5	18.0	19.0
20	22.5	21.0	21.5	26.5	24.5	25.5	23.5	21.5	22.5	18.5	17.0	18.0
21	23.0	20.5	21.5	25.5	23.0	24.0	23.0	21.5	22.5	17.5	17.0	17.5
22	22.5	20.5	21.5	25.0	22.5	24.0	21.0	19.0	20.0	17.5	17.0	17.0
23	22.5	20.0	21.5	24.5	22.5	23.0	20.5	19.0	20.0	18.0	16.5	17.0
24	22.5	20.0	21.0	25.0	22.5	23.5	22.5	20.0	21.0	17.5	15.5	17.0
25	22.5	20.0	21.5	25.0	22.5	24.0	23.0	21.5	22.0	17.5	15.5	17.0
26	22.5	20.5	21.5	26.0	23.5	25.0	22.5	20.5	21.5	17.5	16.5	17.0
27	23.5	21.5	22.5	26.5	24.5	25.5	21.5	20.5	21.0	19.0	17.5	18.5
28	24.0	21.0	22.5	25.5	24.5	25.0	21.5	20.0	21.0	19.0	17.0	18.0
29	23.5	22.0	23.0	25.5	23.5	24.5	20.0	18.0	19.0	19.5	18.0	18.5
30	23.5	22.0	23.0	24.0	22.5	23.0	19.5	17.5	18.5	18.5	17.5	18.0
31	---	---	---	23.5	22.0	22.5	20.0	18.0	19.0	---	---	---
MONTH	24.0	15.5	20.5	27.5	19.5	23.5	25.5	17.5	22.0	22.5	15.5	19.0
YEAR	27.5	.0	12.5									

01412000 MENANTICO CREEK NEAR MILLVILLE, NJ

LOCATION.--Lat 39°25'12", long 74°58'00", Cumberland County, Hydrologic Unit 02040206, on right bank at upstream side of Mays Landing Road (Route 552), 0.9 mi (1.4 km) downstream of Menantico Lake, 4.0 mi (6.4 km) northeast of Millville, and 7.0 mi (11.3 km) upstream from mouth.

DRAINAGE AREA.--23.2 mi^2 (60.1 km^2), revised.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1931 to September 1957, October 1977 to current year. Published as "Manantico Creek" prior to October 1978.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 36.63 ft (11.165 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Water-discharge records good. Occasional regulation from unknown source.

AVERAGE DISCHARGE.--31 years (water years 1932-57, 1978-82), 37.3 ft^3/s (1.056 m^3/s), 22.71 in/yr (577 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,050 ft^3/s (29.7 m^3/s) Aug. 20, 1939, gage height, 6.21 ft (1.893 m), from rating curve extended above 300 ft^3/s (8.5 m^3/s); minimum, 1.4 ft^3/s (0.040 m^3/s) Aug. 16-18, 1936.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 106 ft^3/s (3.00 m^3/s) Apr. 28, gage height, 2.15 ft (0.655 m), no peak above base of 125 ft^3/s (3.54 m^3/s); minimum, 4.3 ft (0.12 m) May 11, 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	22	17	27	38	27	36	60	24	13	14	11
2	13	21	23	33	42	27	35	47	22	13	14	9.9
3	13	20	26	30	57	27	34	54	20	15	13	11
4	13	18	24	52	84	26	37	36	20	19	12	9.9
5	13	18	22	69	55	29	35	29	21	18	11	9.8
6	13	19	20	50	42	31	41	37	22	17	11	9.5
7	13	19	18	40	37	40	48	28	22	15	10	9.1
8	12	18	19	35	34	55	42	26	21	14	9.4	8.5
9	12	18	19	32	35	48	40	29	20	15	9.8	8.1
10	12	17	18	29	38	40	42	26	19	14	10	7.9
11	12	17	18	27	36	36	40	18	18	13	9.5	7.7
12	12	17	17	24	33	35	38	11	17	14	9.1	7.6
13	11	16	17	24	31	34	40	25	20	15	8.8	7.2
14	11	16	18	24	31	33	38	30	32	14	8.7	6.7
15	11	15	35	25	30	31	36	31	31	12	8.0	6.5
16	11	17	61	24	33	31	36	29	26	7.9	7.1	6.7
17	11	20	56	24	41	33	36	27	23	8.7	8.6	6.4
18	11	25	41	23	35	34	79	26	21	9.3	8.8	6.6
19	12	26	34	22	35	32	80	25	19	9.6	8.6	6.6
20	12	23	29	22	41	31	62	24	15	10	9.0	6.8
21	13	21	26	22	41	29	53	29	15	9.7	10	6.6
22	13	19	24	22	40	29	47	31	16	13	9.3	7.0
23	13	17	24	27	36	28	44	31	16	24	9.5	7.5
24	13	16	24	38	34	28	42	30	15	42	14	7.5
25	14	16	24	38	32	27	42	29	14	36	22	7.7
26	17	16	23	33	29	27	48	28	14	25	21	7.9
27	24	16	22	29	28	26	83	25	14	22	19	8.8
28	40	16	22	27	28	25	103	24	14	19	17	9.2
29	41	16	22	25	---	25	99	24	14	17	14	9.4
30	31	15	21	24	---	25	77	25	13	16	14	9.1
31	25	---	20	27	---	27	---	27	---	15	13	---
TOTAL	485	550	784	948	1076	976	1513	921	578	505.2	363.2	244.2
MEAN	15.6	18.3	25.3	30.6	38.4	31.5	50.4	29.7	19.3	16.3	11.7	8.14
MAX	41	26	61	69	84	55	103	60	32	42	22	11
MIN	11	15	17	22	28	25	34	11	13	7.9	7.1	6.4
CFSM	.67	.79	1.09	1.32	1.66	1.36	2.17	1.28	.83	.70	.50	.35
IN.	.78	.88	1.26	1.52	1.73	1.56	2.43	1.48	.93	.81	.58	.39

CAL YR 1981 TOTAL 7577.8 MEAN 20.8 MAX 61 MIN 6.8 CFSM .90 IN 12.15
WTR YR 1982 TOTAL 8943.6 MEAN 24.5 MAX 103 MIN 6.4 CFSM 1.06 IN 14.34

01412800 COHANSEY RIVER AT SEELEY, NJ

LOCATION.--Lat 39°28'21", long 75°15'21", Cumberland County, Hydrologic Unit 02040206, on right bank just downstream from bridge on Silver Lake Road, 0.6 mi (1.0 km) south of Seeley, 2.6 mi (4.2 km) east of Shiloh, 4.1 mi (6.6 km) north of Bridgeton, and 22.5 mi (36.2 km) upstream from mouth.

DRAINAGE AREA.--28.0 mi^2 (72.5 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1977 to current year.

GAGE.--Water-stage recorder. Datum of gage is 26.9 ft (8.20 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Water-discharge records fair. Flow diverted above gage during summer months for irrigation.

AVERAGE DISCHARGE.--5 years, 37.5 ft^3/s (1.062 m^3/s), 18.19 in/yr (462 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,490 ft^3/s (42.2 m^3/s) Feb. 25, 1979, gage height, 6.84 ft (2.085 m); minimum, 13 ft^3/s (0.37 m^3/s) Sept. 13, 1981, gage height, 2.71 ft (1.509 m).

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 250 ft^3/s (7.08 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Apr. 28	0045	*452	12.8	5.47	1.667	July 23	1545	447	12.7	5.46	1.664
June 29	2300	266	7.53	5.00	1.524						

Minimum daily discharge, 15 ft^3/s (0.42 m^3/s) Oct. 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	23	24	39	109	22	38	36	30	26	20	21
2	21	22	44	34	60	21	27	33	54	23	19	21
3	19	23	33	26	115	22	33	32	59	24	19	22
4	16	22	29	77	113	22	44	30	41	26	18	21
5	15	22	30	71	45	24	30	30	33	23	18	21
6	17	27	27	37	31	25	61	29	31	22	20	21
7	17	25	26	29	26	45	54	29	35	22	19	21
8	16	22	29	26	25	58	34	2[illegible]	32	22	18	21
9	16	21	28	25	29	34	32	27	29	21	18	21
10	16	22	26	20	31	26	31	25	27	20	19	21
11	16	21	25	19	26	25	28	24	26	19	20	21
12	16	20	25	20	25	24	26	24	24	21	20	21
13	16	19	24	21	25	23	26	26	55	20	21	21
14	17	19	26	23	23	23	26	25	167	20	21	21
15	18	19	62	23	24	21	25	23	55	22	21	21
16	18	24	81	22	25	27	25	22	30	25	21	21
17	18	23	60	21	25	29	27	22	33	21	21	21
18	18	23	34	21	26	25	69	22	31	19	21	21
19	25	21	27	21	32	24	43	24	26	19	21	21
20	23	21	24	22	35	23	33	25	24	41	21	22
21	21	19	22	22	30	23	33	29	23	57	21	21
22	21	18	24	21	28	23	39	29	23	24	21	23
23	22	17	27	28	25	23	42	30	22	199	21	28
24	30	18	27	32	25	23	36	30	22	79	22	21
25	26	18	26	28	24	23	35	33	22	25	23	21
26	43	18	25	25	22	24	48	33	17	23	21	21
27	33	18	24	23	23	23	101	31	16	22	21	27
28	31	18	24	22	23	22	258	39	17	22	21	24
29	26	16	24	22	---	22	75	63	69	21	21	21
30	25	16	23	23	---	23	44	46	84	21	21	21
31	25	---	23	46	---	31	---	32	---	22	21	---
TOTAL	658	615	953	889	1050	803	1423	930	1157	971	630	650
MEAN	21.2	20.5	30.7	28.7	37.5	25.9	47.4	30.0	38.6	31.3	20.3	21.7
MAX	43	27	81	77	115	58	258	63	167	199	23	28
MIN	15	16	22	19	22	21	25	22	16	19	18	21
CFSM	.76	.73	1.10	1.03	1.34	.93	1.69	1.07	1.38	1.12	.73	.78
IN.	.87	.82	1.27	1.18	1.39	1.07	1.89	1.24	1.54	1.29	.84	.86

CAL YR 1981 TOTAL 9074 MEAN 24.9 MAX 118 MIN 14 CFSM .89 IN 12.06
WTR YR 1982 TOTAL 10729 MEAN 29.4 MAX 258 MIN 15 CFSM 1.05 IN 14.25

01412800 COHANSEY RIVER AT SEELEY, NJ--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1975 to current year.

COOPERATION.--Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	STREP-TOCOCCI FECAL (MPN)	HARD-NESS (MG/L AS CACO3)
OCT 15...	1045	18	220	6.8	11.5	10.1	1.8	130	920	56
FEB 24...	1030	25	203	6.9	6.5	11.2	<1.1	<2	33	49
APR 13...	1215	25	193	6.9	11.5	12.0	3.1	2	<2	58
JUN 08...	1040	33	188	6.9	17.0	8.3	2.8	540	920	55
JUL 13...	1120	20	210	6.9	23.0	7.8	1.3	230	170	56
AUG 23...	1030	21	224	6.3	22.0	8.7	5.1	<200	310	56

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
OCT 15...	11	7.0	14	4.4	17	<.1	22	27	<.1
FEB 24...	9.9	6.0	11	4.1	11	--	20	24	<.1
APR 13...	11	7.3	14	3.4	10	--	24	27	.1
JUN 08...	11	6.8	11	4.2	15	<.5	19	22	.1
JUL 13...	11	6.9	13	4.3	14	--	21	24	.1
AUG 23...	11	6.9	15	4.0	16	--	21	29	.1

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 15...	6.0	145	--	4.6	--	<.05	--	.18	2.4
FEB 24...	6.8	139	--	4.8	--	.15	5.0	.15	1.3
APR 13...	6.8	122	.030	4.4	F.160	--	--	.18	2.8
JUN 08...	5.6	124	.050	3.5	.110	1.20	4.7	.45	5.0
JUL 13...	7.6	--	.040	3.9	.090	.39	4.3	.12	2.2
AUG 23...	6.9	137	<.010	3.7	.140	.32	4.0	.18	7.6

01412800 COHANSEY RIVER AT SEELEY, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)
OCT 15...	1045	30	1	<10	10	<1	10	7
JUN 08...	1040	10	3	<10	20	<1	10	9

DATE	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	PHENOLS (UG/L)
OCT 15...	360	3	50	<.1	7	<1	20	<1
JUN 08...	2400	10	150	.3	6	<1	10	6

01413015 COHANSEY RIVER AT BRIDGETON, NJ

LOCATION.--Lat 39°25'54", long 75°14'11", Cumberland County, Hydrologic Unit 02040206, at bridge on Washington Street in Bridgeton, 1.3 mi (2.1 km) downstream from Sunset Lake, and 18.6 mi (29.9 km) upstream from mouth.

DRAINAGE AREA.--47.3 mi² (122.5 km²).

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1975 to current year.

COOPERATION.--Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN DEMAND, BIO- CHEM- ICAL, 5 DAY (MG/L)	COLI- FORM, FECAL, EC BROTH (MPN)	STREP- TOCOCCI FECAL (MPN)	HARD- NESS (MG/L AS CACO3)
OCT 15...	1230	3200	7.0	13.0	9.4	6.0	540	170	320
FEB 24...	1300	850	7.1	5.5	10.2	3.8	130	79	96
APR 13...	1045	175	6.9	10.0	9.7	3.0	170	490	48
JUN 08...	0920	184	6.9	18.5	7.0	3.0	2400	790	51
JUL 13...	0950	238	6.8	25.0	4.7	3.6	940	2400	54
AUG 23...	1230	600	6.2	22.0	7.0	1.9	7000	330	81

DATE	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)
OCT 15...	24	62	490	19	32	110	710	.2	6.6
FEB 24...	12	16	140	8.1	27	40	240	<.1	7.1
APR 13...	9.4	5.9	11	3.2	16	22	22	.1	7.0
JUN 08...	9.8	6.4	11	3.8	19	19	21	.1	5.0
JUL 13...	9.7	7.3	25	4.0	21	21	37	.2	8.2
AUG 23...	11	13	72	6.0	28	31	140	.1	7.2

DATE	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	PHOS- PHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 15...	1750	--	1.5	--	E.65	--	1.10	3.2
FEB 24...	545	--	3.0	E.480	1.60	4.6	1.00	2.5
APR 13...	109	.020	3.3	.220	1.00	4.3	.21	3.4
JUN 08...	112	.020	2.5	.170	.87	3.4	.25	3.9
JUL 13...	163	.030	2.0	.150	.99	3.0	.31	3.3
AUG 23...	338	.030	2.1	.120	1.20	3.3	.44	3.6

01434000 DELAWARE RIVER AT PORT JERVIS, NY

LOCATION.--Lat 41°22'14", long 74°41'52", Pike County, Pa., Hydrologic Unit 02040104, on right bank 250 ft (76 m) downstream from bridge (on U.S. Highways 6 and 209) between Port Jervis, N.Y. and Matamoras, Pa., 1.2 mi (1.9 km) upstream from Neversink River, and 6.5 mi (10.5 km) downstream from Mongaup River. Water-quality sampling site at discharge station.

DRAINAGE AREA.--3,076 mi^2 (7,967 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1904 to current year.

REVISED RECORDS.--WSP 756: Drainage area. WSP 1031: 1905-36. WRD NY 1971: 1970.

GAGE.--Water-stage recorder. Datum of gage is 415.35 ft (126.599 m) National Geodetic Vertical Datum of 1929. October 1904 to August 13, 1928, nonrecording gage at bridge 250 ft (76 m) upstream at present datum; operated by U.S. Weather Bureau prior to June 20, 1914.

REMARKS.--Records good. Flow regulated by Lake Wallenpaupack and by Toronto, Cliff Lake, and Swinging Bridge Reservoirs (see Reservoirs in Delaware River Basin) and smaller reservoirs. Large diurnal fluctuations at medium and low flows caused by powerplants on tributary streams. Subsequent to September 1954, entire flow from 371 mi^2 (961 km^2) of drainage area controlled by Pepacton Reservoir, and subsequent to October 1963, entire flow from 454 mi^2 (1,176 km^2) of drainage area controlled by Cannonsville Reservoir (see Reservoirs in Delaware River Basin). Part of flow from these reservoirs diverted for New York City municipal supply. Remainder of flow (except for conservation releases and spill) impounded for release during periods of low flow in the lower Delaware River basin, as directed by the Delaware River Master.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 233,000 ft^3/s (6,600 m^3/s) Aug. 19, 1955, gage height, 23.91 ft (7.288 m), from floodmarks in gage house, from rating curve extended above 89,000 ft^3/s (2,520 m^3/s) on basis of slope-area measurement of peak flow; maximum gage height, 26.6 ft (8.118 m) Feb. 12, 1981 (ice jam), from floodmarks; minimum observed discharge, 175 ft^3/s (4.96 m^3/s) Sept. 23, 1908, gage height, 0.6 ft (0.18 m).

EXTREMES OUTSIDE PERIOD OF RECORD.--The U.S. Weather Bureau reported a discharge of 205,000 ft^3/s (5,810 m^3/s) Oct. 10, 1903, gage height, 23.1 ft (7.04 m), from rating curve extended above 70,000 ft^3/s (1,980 m^3/s) by velocity-area studies; stage on Mar. 8, 1904, was 25.5 ft (7.77 m), ice jam.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 34,300 ft^3/s (971 m^3/s) Apr. 4, gage height, 9.05 ft (2.758 m); maximum gage height, 15.82 ft (4.822 m) Feb. 5 (ice jam); minimum discharge, 941 ft^3/s (26.6 m^3/s) Oct. 1, gage height, 1.87 ft (0.570 m); minimum daily, 1,070 ft^3/s (30.3 m^3/s) Oct. 25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1690	3640	1740	2130	1600	2110	16100	5870	2290	5170	1450	1580
2	1850	3100	2050	2300	2300	2190	17400	5300	4300	4360	1430	1880
3	1680	3500	3130	2600	3700	2230	14300	5230	5230	3720	1450	1880
4	1640	3200	3480	3060	6400	1850	28300	5300	4570	3010	1430	1940
5	1590	3030	2960	8490	13000	2330	21800	4780	4040	2670	1400	1850
6	1530	2990	2690	8580	10500	1690	16700	4270	4040	2430	1580	1810
7	1340	3280	2330	6670	8200	2250	14100	4040	5670	2800	1630	1740
8	1500	2940	2430	5360	6400	2410	11800	3450	6480	2600	1630	1660
9	1830	2370	2560	4450	5200	2290	10000	2760	5700	2350	1780	1740
10	1710	2130	2270	3800	4700	2090	8890	2670	4720	2090	2170	1830
11	1590	2780	2150	2800	4200	2070	8710	2940	4190	1450	2190	1900
12	1510	2580	2030	2450	3350	2670	8450	2620	3910	1510	1920	1920
13	1530	2560	1880	2990	3330	3990	7980	2350	3960	2150	1830	1990
14	1680	2450	1580	3200	3250	5840	8150	2170	6410	2330	1540	1940
15	1510	1660	1610	3300	2990	8230	8020	1920	5980	2090	1590	1680
16	1560	1740	1780	3000	3060	8230	7770	1660	4850	2090	1610	1710
17	1580	1780	1990	2700	3560	7530	7450	1530	4630	1990	1560	1710
18	1540	1900	1760	2600	3480	7130	18100	1510	4600	1510	1510	1800
19	1340	1960	1630	2600	3280	9020	20000	1690	4300	1540	1760	1760
20	1230	2030	1140	2400	2890	9660	14700	1810	3740	1990	1740	1730
21	1630	2540	1100	2400	2560	11100	12400	1980	3200	2110	1740	1730
22	1540	2800	1150	2200	2800	12400	10400	1540	3080	2110	1590	1760
23	1540	2510	2500	2300	2870	12500	8840	1450	3060	1880	1710	1740
24	1280	2430	2800	2200	2800	12200	8070	1730	2990	1690	1590	1710
25	1070	2390	4300	1900	2670	13600	7530	2470	2600	1500	1630	1590
26	1540	2130	3500	2100	2390	18900	7130	2370	2290	1340	1760	1640
27	1780	1850	2850	2100	1880	20900	8670	2150	1810	1710	1800	1730
28	5360	1800	2710	2000	1730	13900	9340	2090	1810	1850	1300	1450
29	9390	1800	2960	1900	---	10700	8020	2270	2510	1810	1680	1480
30	5670	1690	2500	1750	---	9110	6750	2090	4270	1530	1690	1740
31	4220	---	2170	1450	---	9290	---	2110	---	1300	1630	---
TOTAL	66450	73560	71730	97780	115090	230410	355870	86120	121230	68680	51320	52620
MEAN	2144	2452	2314	3154	4110	7433	11860	2778	4041	2215	1655	1754
MAX	9390	3640	4300	8580	13000	20900	28300	5870	6480	5170	2190	1990
MIN	1070	1660	1100	1450	1600	1690	6750	1450	1810	1300	1300	1450

CAL YR 1981 TOTAL 1175820 MEAN 3221 MAX 42100 MIN 1070
WTR YR 1982 TOTAL 1390860 MEAN 3811 MAX 28300 MIN 1070

01434000 DELAWARE RIVER AT PORT JERVIS, NY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1957-60, 1964 to current year.
CHEMICAL DATA: 1958-59 (e), 1964-65 (c), 1966 (a), 1967-68 (c), 1969-76 (d).
MINOR ELEMENTS DATA: 1970 (a), 1972-73 (a), 1974-76 (c).
PESTICIDE DATA: 1974 (a).
ORGANIC DATA: OC--1974 (b), 1975 (d).
NUTRIENT DATA: 1968 (a), 1969-76 (d).
BIOLOGICAL DATA:
Bacteria--1973-76 (d).
Phytoplankton--1974 (b), 1975-76 (c).
Periphyton--1976 (a).
SEDIMENT DATA: 1959 (c), 1976 (c).

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: January 1973 to September 1973.
WATER TEMPERATURES: February 1957 to September 1960, January 1973 to September 1973, June 1974 to current year.
SUSPENDED-SEDIMENT DISCHARGE: February 1957 to September 1960, March 1970 to June 1976.

INSTRUMENTATION.--Temperature recorder since January 1973.

REMARKS.--No temperature record Apr. 26 to July 27, due to instrument malfunctions.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum (water years 1957-59, 1973-81), 30.0°C July 13, 1981; minimum (water years 1958-60, 1973, 1975-82), freezing point on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Minimum, freezing point on many days during winter period.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	14.0	11.5	13.0	10.0	9.0	9.5	2.0	1.0	1.0	.0	.0	.0
2	13.5	12.5	13.0	10.0	9.0	9.5	2.0	1.5	2.0	.0	.0	.0
3	13.0	12.0	12.5	10.0	9.0	9.5	2.5	2.0	2.0	.0	.0	.0
4	12.5	11.5	12.0	9.5	8.5	9.0	2.0	1.5	2.0	.0	.0	.0
5	13.0	11.5	12.5	10.0	8.5	9.5	2.5	2.0	2.5	.5	.0	.0
6	13.0	12.5	12.5	10.5	9.0	9.5	2.0	.5	1.5	.0	.0	.0
7	13.0	12.0	12.5	9.5	7.0	8.0	1.0	.5	1.0	.5	.0	.0
8	12.0	11.0	11.5	7.5	6.5	7.0	1.5	1.0	1.5	.0	.0	.0
9	12.0	10.5	11.0	6.5	6.0	6.5	1.5	.5	1.0	.0	.0	.0
10	11.5	10.0	11.0	6.0	5.0	5.5	.5	.0	.0	.0	.0	.0
11	11.5	10.0	11.0	7.0	5.0	6.0	.5	.0	.5	.0	.0	.0
12	11.5	10.0	11.0	6.5	5.5	6.0	1.0	.0	.5	.0	.0	.0
13	11.5	10.0	11.0	6.0	4.5	5.0	.5	.0	.0	.0	.0	.0
14	12.0	10.0	11.0	6.0	4.0	5.5	.5	.0	.0	.0	.0	.0
15	11.5	10.5	11.0	6.0	5.5	6.0	.5	.0	.0	.0	.0	.0
16	12.0	10.5	11.0	6.5	6.0	6.0	.0	.0	.0	.0	.0	.0
17	11.5	10.0	11.0	7.5	6.5	7.0	.0	.0	.0	.0	.0	.0
18	11.0	10.0	10.0	7.5	7.0	7.0	.0	.0	.0	.0	.0	.0
19	10.0	9.0	9.5	8.0	7.0	7.5	.0	.0	.0	.0	.0	.0
20	10.0	8.0	9.0	8.0	7.5	8.0	.0	.0	.0	.0	.0	.0
21	10.0	8.5	9.0	8.0	6.0	7.0	.5	.0	.0	.0	.0	.0
22	11.0	9.5	10.0	6.0	5.0	5.5	.0	.0	.0	.0	.0	.0
23	11.0	10.5	11.0	5.0	4.0	4.5	.0	.0	.0	.0	.0	.0
24	10.5	9.0	10.0	4.0	3.5	4.0	.0	.0	.0	.0	.0	.0
25	9.0	8.0	9.0	3.5	2.5	3.0	.0	.0	.0	.0	.0	.0
26	9.5	8.5	9.0	2.5	2.0	2.5	.0	.0	.0	.0	.0	.0
27	10.5	9.5	10.0	3.5	2.5	3.0	.0	.0	.0	.0	.0	.0
28	10.5	10.5	10.5	3.5	3.0	3.5	.0	.0	.0	.0	.0	.0
29	10.5	10.0	10.5	3.5	2.5	3.0	.0	.0	.0	.0	.0	.0
30	9.5	9.0	9.0	2.5	2.0	2.0	.0	.0	.0	.0	.0	.0
31	9.5	9.0	9.0	---	---	---	.0	.0	.0	.0	.0	.0
MONTH	14.0	8.0	11.0	10.5	2.0	6.0	2.5	.0	.5	.5	.0	.0

01434000 DELAWARE RIVER AT PORT JERVIS, NY--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	.0	.0	.0	1.0	.0	.5	6.0	5.5	6.0			
2	.0	.0	.0	2.0	.0	1.0	6.0	5.0	5.5			
3	.0	.0	.0	1.0	.0	.5	5.5	5.0	5.0			
4	.0	.0	.0	.0	.0	.0	5.0	3.5	4.5			
5	.0	.0	.0	1.0	.0	.5	3.5	2.5	3.5			
6	.5	.0	.0	1.0	.0	.5	3.5	1.5	2.5			
7	.0	.0	.0	1.0	.5	.5	1.5	1.0	1.0			
8	.0	.0	.0	1.5	.0	.5	2.0	.5	1.5			
9	.5	.0	.5	.5	.0	.5	3.0	1.5	2.5			
10	.0	.0	.0	1.5	.0	1.0	4.5	2.5	3.5			
11	.0	.0	.0	2.0	.5	1.0	5.5	4.0	4.5			
12	.0	.0	.0	3.5	1.5	2.0	5.5	4.5	5.0			
13	.5	.0	.0	2.0	1.5	1.5	5.0	4.5	4.5			
14	.0	.0	.0	2.5	1.0	1.5	6.5	4.5	5.5			
15	.5	.0	.0	2.0	1.0	1.5	7.5	5.5	6.5			
16	1.0	.0	.5	2.0	1.5	1.5	9.0	7.0	8.0			
17	.5	.0	.0	2.0	1.5	1.5	11.0	9.0	9.5			
18	1.0	.0	.5	3.0	1.5	2.0	10.5	9.5	10.0			
19	.0	.0	.0	3.0	2.0	2.5	9.0	7.5	8.5			
20	1.0	.0	.5	3.0	1.5	2.0	9.5	8.0	9.0			
21	1.0	.5	.5	3.0	2.0	2.0	10.5	9.5	10.0			
22	1.5	.0	.5	2.5	1.5	2.0	10.0	9.0	9.5			
23	1.5	.0	1.0	3.0	1.5	2.0	9.5	8.0	8.5			
24	1.0	.0	.5	4.0	2.5	3.5	12.5	8.5	10.0			
25	.5	.0	.0	5.0	3.5	4.5	13.5	11.0	12.0			
26	.5	.0	.5	5.0	4.0	5.0	---	---	---			
27	1.0	.0	.5	4.0	2.5	3.5	---	---	---			
28	1.5	.0	.5	2.5	2.0	2.5	---	---	---			
29	---	---	---	3.5	2.0	3.0	---	---	---			
30	---	---	---	5.0	3.5	4.5	---	---	---			
31	---	---	---	6.0	5.0	5.5	---	---	---			
MONTH	1.5	.0	.0	6.0	.0	2.0	13.5	.5	6.5			

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1				---	---	---	24.5	23.0	24.0	20.0	20.0	20.0
2				---	---	---	25.0	23.0	24.0	22.0	20.0	21.0
3				---	---	---	25.5	23.5	24.5	23.0	21.0	22.0
4				---	---	---	26.0	23.5	25.0	21.5	19.5	20.0
5				---	---	---	27.0	24.5	26.0	20.5	18.0	19.5
6				---	---	---	26.0	24.5	25.5	21.0	18.5	20.0
7				---	---	---	26.5	24.5	25.5	20.5	18.5	19.5
8				---	---	---	25.5	24.0	24.5	19.0	18.0	18.5
9				---	---	---	25.5	23.5	24.5	20.0	17.5	18.5
10				---	---	---	25.5	23.5	24.5	21.0	18.5	20.0
11				---	---	---	24.5	22.5	23.0	21.0	19.0	20.0
12				---	---	---	23.0	21.0	22.0	21.5	19.0	20.5
13				---	---	---	23.0	21.0	22.0	21.5	19.5	20.5
14				---	---	---	23.0	21.0	22.0	21.5	19.5	20.5
15				---	---	---	23.5	20.5	22.5	21.0	20.0	20.5
16				---	---	---	23.5	21.5	22.5	21.0	20.0	20.5
17				---	---	---	24.0	22.5	23.0	20.5	19.0	19.5
18				---	---	---	24.0	21.5	23.0	19.0	17.5	18.0
19				---	---	---	23.5	21.5	22.5	17.5	16.0	17.0
20				---	---	---	23.0	21.5	22.0	16.5	15.0	15.5
21				---	---	---	22.0	20.5	21.5	15.5	14.5	15.0
22				---	---	---	21.0	19.0	20.0	15.0	14.5	14.5
23				---	---	---	20.5	19.0	20.0	16.0	14.5	15.0
24				---	---	---	22.0	19.5	21.0	16.0	14.5	15.5
25				---	---	---	21.5	20.0	21.0	17.0	15.0	16.0
26				---	---	---	22.0	19.5	21.0	16.5	15.5	16.0
27				---	---	---	21.5	20.5	21.0	17.5	16.0	16.5
28				25.0	22.5	23.5	21.5	19.5	20.5	18.0	16.0	17.0
29				24.5	21.5	23.0	20.0	18.0	19.0	17.5	17.0	17.0
30				23.5	22.0	23.0	20.0	18.0	19.5	17.5	16.5	17.0
31				24.5	21.5	23.0	20.0	18.5	19.5	---	---	---
MONTH				25.0	21.5	23.0	27.0	18.0	22.5	23.0	14.5	18.5

01437500 NEVERSINK RIVER AT GODEFFROY, NY

LOCATION.--Lat 41°26'28", long 74°36'07", Orange County, Hydrologic Unit 02040104, on right bank just upstream from highway bridge on Graham Road, 0.5 mi (0.8 km) downstream from Basher Kill, 0.8 mi (1.3 km) southeast of Godeffroy, 1.7 mi (2.7 km) south of Cuddebackville, and 8.5 mi (13.7 km) upstream from mouth.

DRAINAGE AREA.--307 mi^2 (782 km^2), revised.

PERIOD OF RECORD.--August to October 1903, July 1937 to current year. Gage heights and discharge measurements, August 1909 to April 1914. Twice-daily figures of discharge, January 1911 to December 1912, which do not represent daily mean discharges because of diurnal fluctuation. August to October 1903, published as "Navesink River at Godeffroy, NY."

REVISED RECORDS.--WSP 821: Drainage area. WSP 1502: 1951(M).

GAGE.--Water-stage recorder. Datum of gage is 459.66 ft (140.104 m) National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers). Prior to Apr. 30, 1914, nonrecording gages at same site (August to October 1903 at datum 0.98 ft or 0.299 m higher).

REMARKS.--Records fair except those for winter periods, which are poor. Prior to 1949, diurnal fluctuation at low and medium flow caused by powerplant at Cuddebackville. Subsequent to June 1953, entire flow from 91.8 mi^2 (237.8 km^2) of drainage area controlled by Neversink Reservoir (see Reservoirs in Delaware River Basin). Part of flow diverted for New York City municipal supply. Remainder of flow (except for conservation releases and spill), impounded for release during periods of low flow in the lower Delaware River basin, as directed by the Delaware River Master.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 33,000 ft^3/s (935 m^3/s) Aug. 19, 1955, gage height, 12.49 ft (3.087 m), from rating curve extended above 11,000 ft^3/s (312 m^3/s) on basis of slope-area measurement of peak flow; practically no flow several times in July 1911.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,540 ft^3/s (100 m^3/s) Apr. 18, gage height 6.43 ft (1.960 m); minimum discharge, 82 ft^3/s (2.32 m^3/s) Oct. 1, gage height, 3.14 ft (0.957 m); minimum gage height, 3.09 ft (0.942 m) July 27.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	101	197	186	220	220	230	1530	594	461	406	165	117
2	159	179	279	249	290	230	1180	540	622	322	134	122
3	140	165	347	212	513	210	1150	503	541	298	128	143
4	122	149	302	389	1100	190	2070	480	465	288	125	128
5	114	146	275	1210	950	230	1340	421	446	261	149	117
6	118	165	253	899	760	250	1150	390	545	228	140	119
7	143	183	216	799	660	273	999	377	971	208	131	119
8	134	179	240	600	560	329	882	348	752	197	149	114
9	117	165	220	450	500	280	800	335	635	183	183	117
10	111	155	186	390	450	300	716	319	540	172	216	114
11	109	149	183	340	420	295	735	296	473	162	172	114
12	106	146	197	310	380	421	730	281	441	169	143	111
13	111	140	179	300	350	648	679	283	545	159	128	109
14	119	134	162	310	310	753	735	274	961	149	117	109
15	114	140	186	310	345	802	669	251	709	143	117	111
16	114	169	186	280	367	765	604	236	576	140	106	125
17	119	186	183	250	412	742	595	226	750	143	101	114
18	125	179	193	230	379	732	2520	221	635	146	103	101
19	143	165	140	210	360	898	1520	211	522	140	96	101
20	149	172	130	200	354	939	1560	318	471	172	94	103
21	134	228	140	200	347	1070	1210	281	416	176	111	114
22	125	204	160	190	336	1100	937	268	372	131	103	119
23	128	201	212	180	319	1160	694	289	446	125	98	146
24	186	201	317	170	290	1180	569	343	389	119	96	140
25	179	183	284	170	270	1240	486	332	332	114	137	122
26	179	186	240	170	250	1690	493	299	298	111	162	125
27	220	193	232	170	240	1470	1030	271	302	109	137	190
28	357	186	228	160	240	1110	1120	256	302	143	134	249
29	284	176	220	170	---	950	811	419	423	169	125	172
30	236	162	197	160	---	859	669	454	631	131	122	165
31	236	---	179	150	---	969	---	429	---	137	117	---
TOTAL	4732	5183	6652	10048	11972	22315	30183	10545	15972	5551	4039	3850
MEAN	153	173	215	324	428	720	1006	340	532	179	130	128
MAX	357	228	347	1210	1100	1690	2520	594	971	406	216	249
MIN	101	134	130	150	220	190	486	211	298	109	94	101

CAL YR 1981 TOTAL 107047 MEAN 293 MAX 4360 MIN 62
WTR YR 1982 TOTAL 131042 MEAN 359 MAX 2520 MIN 94

01438500 DELAWARE RIVER AT MONTAGUE, NJ

LOCATION.--Lat 41°18'33", long 74°47'44", Pike County, PA, Hydrologic Unit 02040104, on right bank 0.4 mi (0.6 km) upstream from toll bridge on U.S. Route 206 at Montague, 0.8 mi (1.3 km) downstream from Sawkill Creek, and at mile 246.3 (396.3 km).

DRAINAGE AREA.--3,480 mi² (9,013 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1936 to September 1939 (gage heights only, published as "at Milford, PA"). October 1939 to current year. Monthly discharge only for some periods, published in WSP 1302.

REVISED RECORDS.--WDR-NJ-81-2: 1980.

GAGE.--Water-stage recorder. Datum of gage is 369.93 ft (112.755 m) National Geodetic Vertical Datum of 1929. Prior to Feb. 9, 1940, nonrecording gage on upstream side of left span of subsequently dismantled bridge at present site at datum 70 ft (21.3 m) lower.

REMARKS.--Water-discharge records excellent except those for winter months, which are good. Diurnal fluctuations at medium and low flow caused by powerplants on tributary streams. Flow regulated by Lake Wallenpaupack and by Pepacton, Cannonsville, Swinging Bridge, Toronto, Cliff Lake, and Neversink Reservoirs (see Delaware River Basin, reservoirs in) and smaller reservoirs. Diversion from Pepacton, Cannonsville, and Neversink Reservoirs (see Delaware River Basin, diversions).

AVERAGE DISCHARGE.--43 years, 5,839 ft³/s (165.4 m³/s), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 250,000 ft³/s (7,080 m³/s) Aug. 19, 1955, gage height, 35.15 ft (10.714 m), from rating curve extended above 90,000 ft³/s (2,550 m³/s) on basis of flood-routing study; minimum, 382 ft³/s (10.8 m³/s) Aug. 24, 1954, gage height, 3.83 ft (1.167 m), minimum daily, 412 ft³/s (11.7 m³/s) Aug. 23, 1954.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of October 10, 1903, reached a stage of 35.5 ft (10.82 m) from floodmark, present datum.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 35,200 ft³/s (997 m³/s) Apr. 4, gage height, 13.54 ft (4.127 m), maximum gage height 18.82 ft (5.736 m) Feb. 4, ice jam; minimum discharge, 1,060 ft³/s (30.0 m³/s) Oct. 1, gage height, 4.56 ft (1.390 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1770	4150	2000	2700	1950	2300	16900	7160	2780	6010	1650	1610
2	1970	3470	2420	2800	2800	2800	19200	6320	5010	5030	1650	1900
3	2090	3950	3570	3100	4500	2600	15600	6210	6260	4280	1600	1960
4	1680	3600	4120	3600	8000	2300	29200	6230	5440	3530	1630	2070
5	1670	3390	3570	9400	16000	2700	24400	5660	4820	3140	1560	1970
6	1770	3400	3170	10500	12000	2400	18700	5060	4830	2800	1720	1930
7	1610	3680	2750	8370	9200	2600	15600	4770	6750	3200	1770	1830
8	1510	3310	2700	6820	7200	2800	13100	4200	7720	2960	1800	1790
9	2000	2750	2830	5600	6000	2700	11500	3340	6810	2680	2030	1830
10	1910	2430	2570	4500	5400	2600	10400	3110	5690	2400	2480	2000
11	1770	3070	2490	3200	4800	2600	10200	3470	4980	1710	2300	2020
12	1620	2900	2320	3100	4200	3200	9930	3180	4620	1790	2030	2050
13	1690	2860	2070	3400	4100	5000	9420	2810	4710	2420	1890	2140
14	1770	2780	1840	3700	3900	7000	9550	2630	7760	2560	1720	2090
15	1670	1940	2000	3700	3600	9400	9400	2390	7370	2320	1720	1820
16	1650	2060	2100	3400	3600	9800	9090	2050	6000	2320	1640	1870
17	1730	2120	2400	3100	4300	9000	8760	1870	5780	2220	1580	1800
18	1670	2230	2200	3000	4200	8400	19100	1800	5770	1730	1760	1910
19	1500	2260	1950	2900	4000	10500	22500	2030	5270	1760	1820	1870
20	1380	2360	1400	2700	3800	11400	16800	2160	4630	2310	1850	1820
21	1700	2870	1300	2800	3200	12400	14000	2370	3900	2380	1760	1850
22	1710	3220	1400	2600	3200	13600	11700	1960	3750	2360	1800	1880
23	1710	2890	2800	2700	3400	13900	10100	1810	3720	2120	1670	1950
24	1600	2810	3300	2600	3300	13400	9230	2080	3700	1940	1750	1870
25	1270	2740	4800	2200	3200	14900	8580	2910	3210	1600	1900	1730
26	1780	2550	4000	2400	2900	20400	8110	2840	2860	1510	1990	1790
27	2080	2230	3400	2400	2600	22900	9990	2550	2290	1870	1450	1950
28	5570	2150	3200	2300	2200	15400	10900	2490	2230	1920	1800	1810
29	9930	2140	3500	2200	---	11900	9530	2890	2980	2050	1790	1630
30	6410	2020	2900	2000	---	10500	8090	2830	5120	1780	1710	1920
31	4810	---	2600	1700	---	10400	---	2750	---	1520	1640	---
TOTAL	73000	84330	83670	115490	137550	261800	399580	103930	146760	78220	55460	56660
MEAN	2355	2811	2699	3725	4913	8445	13320	3353	4892	2523	1789	1889
MAX	9930	4150	4800	10500	16000	22900	29200	7160	7760	6010	2480	2140
MIN	1270	1940	1300	1700	1950	2300	8090	1800	2230	1510	1450	1610

CAL YR 1981 TOTAL 1342320 MEAN 3678 MAX 47000 MIN 1200
WTR YR 1982 TOTAL 1596450 MEAN 4374 MAX 29200 MIN 1270

01439830 BIG FLAT BROOK AT TUTTLES CORNER, NJ

LOCATION.--Lat 41°12'00", long 74°48'56", Sussex County, Hydrologic Unit 02040104, at bridge on State Route 521 in Tuttles Corner, 0.7 mi (1.1 km) west of intersection of U.S. Route 206 with State Route 521, 1.2 mi (1.9 km) south of Layton, and 2.0 mi (3.2 km) upstream from Little Flat Brook.

DRAINAGE AREA.--28.3 mi² (73.3 km²).

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1964, 1976 to June 1982 (discontinued).

COOPERATION.--Field data and samples for laboratory analyses supplied by New Jersey Department of Environmental Protection, Division of Water Resources. Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	STREP-TOCOCCI FECAL (MPN)
FEB									
25...	1100	69	87	7.2	.0	14.0	<.9	<20	<2
APR									
05...	1000	177	61	6.6	2.0	13.3	<.4	<20	<2
JUN									
03...	1130	98	65	7.0	14.5	10.3	E3.1	<20	240

DATE	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)
FEB									
25...	28	7.4	2.3	5.8	.9	10	--	13	6.9
APR									
05...	18	5.0	1.4	2.8	.5	7.0	--	13	4.8
JUN									
03...	22	6.0	1.6	2.5	.3	12	<.5	10	4.5

DATE	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
FEB									
25...	<.1	5.1	58	<.010	<.10	E.160	.20	.09	1.4
APR									
05...	<.1	3.7	39	<.010	E.30	.150	E.35	.06	2.6
JUN									
03...	<.1	4.5	49	<.010	<.10	.100	.30	.06	4.3

01439830 BIG FLAT BROOK AT TUTTLES CORNER, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)
JUN 03...	1130	30	1	<10	20	<1	10	5

DATE	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	PHENOLS (UG/L)
JUN 03...	350	1	40	<.1	<1	<1	20	<1

01440000 FLAT BROOK NEAR FLATBROOKVILLE, NJ

LOCATION.--Lat 41°06'24", long 74°57'09", Sussex County, Hydrologic Unit 02040104, on right bank 1.0 mi (1.6 km) upstream from Flatbrookville, and 1.5 mi (2.4 km) upstream from mouth.

DRAINAGE AREA.--64.0 mi² (165.8 km²), revised.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1923 to current year.

REVISED RECORDS.--WSP 781: Drainage area. WSP 1432: 1924(M), 1928(M), 1929, 1930(M), 1932, 1933(M), 1936, 1938(M), 1939-40, 1949(M), 1952-53(M). WDR-NJ-80-2: 1970(M).

GAGE.--Water-stage recorder. Concrete control since Aug. 19, 1929. Datum of gage is 347.73 ft (105.988 m) National Geodetic Vertical Datum of 1929. Prior to Jan. 6, 1926, nonrecording gage at same site and datum.

REMARKS.--Water-discharge records good. Flow occasionally regulated by ponds above station.

AVERAGE DISCHARGE.--59 years, 109 ft³/s (3.087 m³/s) 22.74 in/yr (578 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,560 ft³/s (271 m³/s) Aug. 19, 1955, gage height, 12.58 ft (3.834 m) from high-water mark in gage house, from rating curve extended above 2,000 ft³/s (56.6 m³/s) on basis of slope-area measurement of peak flow; minimum, 3.6 ft³/s (0.10 m³/s) Sept. 25, 26, 1964, Sept. 11, 1966, but may have been lower during period of ice effect, Feb. 2-11, 1981.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 650 ft³/s (18.4 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Feb. 4	0645	*1730	49.0	5.60	1.707
June 30	1115	884	25.0	4.17	1.271

Minimum discharge, 8.5 ft³/s (0.24 m³/s) Oct. 17, gage height, 1.78 ft (0.543 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	32	19	18	67	109	65	164	180	119	247	35	21
2	34	17	74	77	142	67	144	165	174	160	32	21
3	28	15	75	492	276	67	172	149	143	131	30	23
4	19	14	53	386	823	55	492	137	149	132	29	22
5	15	14	43	229	356	68	290	125	118	108	28	20
6	14	17	37	174	248	74	245	117	125	92	26	19
7	14	21	33	139	267	81	217	112	138	83	24	18
8	13	20	32	115	210	126	197	105	122	76	24	18
9	12	18	33	98	131	91	186	101	102	69	54	17
10	12	17	30	169	142	96	184	95	89	61	60	16
11	11	15	27	10	195	92	211	86	81	58	40	15
12	11	14	27	90	163	146	210	80	76	63	34	14
13	12	14	24	78	94	218	200	79	104	63	30	14
14	10	14	23	73	116	261	190	75	257	54	26	14
15	9.6	15	28	69	85	272	165	70	162	49	25	14
16	9.5	16	32	64	90	235	149	66	120	47	23	14
17	8.9	18	41	61	124	234	140	61	130	43	22	15
18	9.5	18	32	62	102	233	208	59	117	41	24	14
19	12	17	30	73	96	256	167	55	96	45	22	14
20	13	19	35	75	91	260	134	55	88	92	20	14
21	11	30	42	71	91	252	119	53	78	128	20	15
22	11	28	39	66	89	238	108	52	72	71	18	17
23	12	23	56	74	85	208	97	61	122	56	18	23
24	28	21	49	83	93	184	90	80	99	50	18	28
25	26	20	45	71	81	167	84	78	77	44	57	21
26	24	18	43	61	73	176	125	64	67	40	81	18
27	32	19	41	59	78	178	336	54	65	37	42	42
28	46	19	38	61	69	146	312	51	66	39	32	67
29	40	19	29	57	---	131	252	249	86	43	27	38
30	29	17	39	54	---	122	203	189	626	37	23	29
31	22	---	64	55	---	120	---	133	---	35	21	---
TOTAL	580.5	546	1212	3313	4519	4919	5791	3036	3868	2294	965	635
MEAN	18.7	18.2	39.1	107	161	159	193	97.9	129	74.0	31.1	21.2
MAX	46	30	75	492	823	272	492	249	626	247	81	67
MIN	8.9	14	18	10	69	55	84	51	65	35	18	14
CFSM	.29	.28	.61	1.67	2.52	2.48	3.02	1.53	2.02	1.16	.49	.33
IN.	.34	.32	.70	1.93	2.63	2.86	3.37	1.76	2.25	1.33	.56	.37

CAL YR 1981 TOTAL 27012.6 MEAN 74.0 MAX 1550 MIN 8.9 CFSM 1.16 IN 15.70
WTR YR 1982 TOTAL 31678.5 MEAN 86.8 MAX 823 MIN 8.9 CFSM 1.36 IN 18.41

01440200 DELAWARE RIVER BELOW TOCKS ISLAND DAMSITE, NEAR DELAWARE WATER GAP, PA

LOCATION.--Lat 41°00'42", long 75°05'09", Warren County, NJ, Hydrologic Unit 02040105, on left bank 40 ft (12 m) streamward from River Road, 1.0 mi (1.6 km) downstream from Tocks Island, 3.7 mi (6.0 km) northeast of Delaware Water Gap, PA, 4.0 mi (6.4 km) upstream from bridge on Interstate Highway 80, and at mile 216.1 (347.7 km).

DRAINAGE AREA.--3,850 mi^2 (9,970 km^2) approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1964 to current year.

GAGE.--Water-stage recorder. Datum of gage is 293.64 ft (89.501 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Water-discharge records poor. Diurnal fluctuation at medium and low flow caused by powerplants on tributary streams. Flow regulated by Lake Wallenpaupack, and by Pepacton, Cannonsville, Swinging Bridge, Toronto, Cliff Lake, and Neversink Reservoirs (see Delaware River Basin, reservoirs in) and smaller reservoirs. Diversion from Pepacton, Cannonsville, and Neversink Reservoirs (see Delaware River Basin, diversions).

AVERAGE DISCHARGE.--18 years, 6,388 ft^3/s (181.0 m^3/s), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 103,000 ft^3/s (2,920 m^3/s) June 30, 1973, gage height, 23.82 ft (7.260 m); minimum daily, 580 ft^3/s (16.4 m^3/s) July 7, 8, 1965.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 51,000 ft^3/s (1,445 m^3/s) Feb. 5, gage height, 16.14 ft (4.919 m) ice jam; minimum daily discharge, 1,400 ft^3/s (39.6 m^3/s) Oct. 21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1940	4760	2260	3190	3310	2740	16100	8880	3750	8660	1910	1960
2	2210	4050	2820	3870	3810	3330	22600	7670	5330	7210	2010	2000
3	2440	4190	3620	3740	7060	3280	18600	7360	7600	6160	1960	2580
4	1910	4000	4870	4200	13100	3090	30700	7300	7360	5540	1910	2370
5	2010	3780	4580	10600	18500	2900	32400	6890	6490	4750	1890	2340
6	2010	3640	3920	14200	16500	3220	23100	6260	6110	4170	1820	2220
7	1830	4080	3560	10900	16900	2840	19200	5860	7110	3970	1940	2160
8	1610	3430	3130	9330	13300	3590	15800	5530	9370	3960	2000	2060
9	1980	3360	3340	7580	10800	3650	13500	4450	8480	3650	4300	2040
10	2180	2890	3300	5540	10000	3600	11900	3990	7260	3300	4530	2050
11	1940	3280	2730	3560	8490	3310	11400	4210	6450	2900	3760	2160
12	1830	3420	2630	4040	7280	3500	11300	4110	5890	3070	3170	2160
13	1820	3210	2570	3890	6230	6000	10800	3610	5790	3130	2760	2170
14	1780	3140	2290	3840	6350	7950	10600	3430	8520	3280	2450	2220
15	1870	2400	2140	4080	5690	10600	10600	3200	9760	3170	2280	2180
16	1730	2250	2430	3910	5550	11700	10200	2810	8050	2850	2190	1990
17	1770	2340	2400	3680	5960	11100	9870	2530	7140	2840	2060	1950
18	1690	2450	2520	3250	6090	10200	16400	2380	7360	2620	2030	1930
19	1710	2540	2370	3260	5640	11300	27700	2520	7150	2220	2110	2000
20	1510	2640	2090	3490	5100	13900	20200	2610	6440	2720	2110	1980
21	1400	2880	1690	3350	4420	14100	16600	2880	5590	3480	2110	1980
22	1870	3540	1610	3130	4170	16200	13700	2770	5000	3140	2000	2040
23	1730	3460	2040	2960	4390	17200	11600	2340	5360	2860	2030	2170
24	1880	3230	3310	3020	4520	15600	10500	2690	5210	2560	1930	2170
25	1470	3130	4900	3000	4380	17200	9690	3410	4600	2310	3100	2080
26	1500	2990	5340	2610	4370	20900	9200	3720	4070	2080	3610	1930
27	2110	2650	4210	2730	3770	28200	11500	3370	3580	1980	2740	2230
28	3310	2460	3700	2840	2880	19800	13200	3160	3250	2440	2120	2550
29	10700	2420	3940	2810	---	14400	11900	4240	4940	2600	2250	2190
30	7980	2360	4330	2670	---	12100	10100	4350	8740	2450	2160	1980
31	5710	---	3380	2590	---	11400	---	3790	---	2140	2050	---
TOTAL	77430	94970	98020	141860	208560	308900	460960	132320	191750	108210	75290	63840
MEAN	2498	3166	3162	4576	7449	9965	15370	4268	6392	3491	2429	2128
MAX	10700	4760	5340	14200	18500	28200	32400	8880	9760	8660	4530	2580
MIN	1400	2250	1610	2590	2880	2740	9200	2340	3250	1980	1820	1930

CAL YR 1981 TOTAL 1585730 MEAN 4344 MAX 48000 MIN 1250
WTR YR 1982 TOTAL 1962110 MEAN 5376 MAX 32400 MIN 1400

01443000 DELAWARE RIVER AT PORTLAND, PA

LOCATION.--Lat 40°55'26", long 75°05'46", Northampton County, Hydrologic Unit 02040105, at walkbridge connecting Portland, PA and Columbia, NJ, and 0.5 mi (0.8 km) upstream of Paulins Kill.

DRAINAGE AREA.--4,165 mi² (10,787 km²).

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976 to current year.

COOPERATION.--Field data and samples for laboratory analyses supplied by New Jersey Department of Environmental Protection, Division of Water Resources. Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	STREPTOCOCCI FECAL (MPN)	HARDNESS (MG/L AS CACO3)
OCT									
08...	1030	90	7.5	11.0	9.9	E1.6	<20	22	29
MAR									
02...	1050	98	7.3	1.0	14.6	E1.8	20	2	27
APR									
20...	1250	64	6.7	9.0	11.0	<.9	<20	<20	19
JUN									
07...	1100	77	7.0	16.0	9.0	E1.7	<20	240	26
JUL									
21...	1030	94	7.0	24.0	8.1	E1.9	<20	79	30
AUG									
24...	1030	94	7.6	18.5	8.8	E2.2	<20	8	32

DATE	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
OCT									
08...	8.8	1.8	4.4	.9	16	<.1	11	6.8	<.1
MAR									
02...	8.0	1.7	5.1	.8	13	--	12	8.5	<.1
APR									
20...	5.9	1.1	3.0	.7	8.0	--	10	5.8	<.1
JUN									
07...	7.6	1.6	5.1	.6	17	--	10	6.2	<.1
JUL									
21...	9.1	1.7	4.5	.4	21	--	12	7.3	.1
AUG									
24...	9.6	2.0	4.3	.7	21	--	10	7.7	.1

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT									
08...	1.1	49	.010	.20	--	<.05	--	.12	1.8
MAR									
02...	3.2	61	<.010	.50	.110	.36	.86	.06	3.4
APR									
20...	2.8	47	.020	.61	.200	.40	1.0	.09	2.7
JUN									
07...	3.1	52	<.010	.30	.080	.47	.77	.37	3.5
JUL									
21...	2.5	--	.010	.30	.110	.49	.79	.09	3.2
AUG									
24...	1.6	55	<.010	.40	.050	.27	.67	.09	2.1

01443000 DELAWARE RIVER AT PORTLAND, PA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BERYL- LIUM, TOTAL RECOV- ERABLE (UG/L AS BE)	BORON, TOTAL RECOV- ERABLE (UG/L AS B)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)
OCT								
08...	1030	10	3	<10	10	1	<10	6

DATE	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI)	SELE- NIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	PHENOLS (UG/L)
OCT								
08...	80	1	10	<.1	1	<1	20	1

01443440 PAULINS KILL AT BALESVILLE, NJ

LOCATION.--Lat 41°06'20", long 74°45'19", Sussex County, Hydrologic Unit 02040105, at bridge on unnamed road at Balesville, 2.2 mi (3.5 km) downstream from Dry Brook, and 3.4 mi (5.5 km) north of Newton.

DRAINAGE AREA.--67.1 mi^2 (173.8 km^2).

WATER-QUALITY RECORDS

PERIOD OF RECORD.--January 1979 to current year.

COOPERATION.--Field data and samples for laboratory analyses supplied by New Jersey Department of Environmental Protection, Division of Water Resources. Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	STREPTOCOCCI FECAL (MPN)	HARDNESS (MG/L AS CACO3)
OCT 29...	1300	65	498	7.8	9.0	10.8	2.8	>24000	5400	180
FEB 25...	1250	112	415	7.6	.0	14.0	E1.5	50	2	150
APR 22...	1150	120	378	8.2	10.0	12.2	E1.8	80	23	130
MAY 25...	1100	80	465	8.0	12.0	10.0	E2.0	1700	920	180
JUL 14...	1030	115	398	7.8	21.0	8.3	E2.0	490	920	150
AUG 03...	1045	46	543	8.0	17.5	8.8	E1.6	330	>2400	220

DATE	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
OCT 29...	47	15	23	3.3	120	.1	48	42	.2
FEB 25...	38	13	24	1.8	100	--	27	41	.1
APR 22...	34	12	20	1.5	100	--	27	37	.1
MAY 25...	45	16	23	1.6	142	--	29	43	.1
JUL 14...	37	13	21	1.4	121	--	20	35	.2
AUG 03...	56	20	27	1.2	170	--	30	46	.2

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 29...	8.0	300	.017	1.3	--	.72	2.0	.45	7.5
FEB 25...	6.4	243	<.010	1.1	E.490	.86	2.0	.28	4.0
APR 22...	3.5	222	.020	.70	<.050	E.55	--	.21	4.9
MAY 25...	7.2	297	.060	1.3	.080	E.40	--	.37	2.9
JUL 14...	7.2	255	.060	.60	.150	.92	1.5	.44	8.6
AUG 03...	5.5	329	.020	1.0	.080	.57	1.6	.44	4.1

01443440 PAULINS KILL AT BALESVILLE, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)
OCT								
29...	1300	<10	1	<10	40	<1	10	10

DATE	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	PHENOLS (UG/L)
OCT								
29...	280	2	60	<.1	2	<1	50	6

01443500 PAULINS KILL AT BLAIRSTOWN, NJ

LOCATION.--Lat 40°58'44", long 74°57'15", Warren County, Hydrologic Unit 02040105, on right bank 1,200 ft (370 m) upstream from bridge on State Highway 94 in Blairstown, 1,400 ft (430 m) upstream from Blairs Creek, and 10 mi (16 km) upstream from mouth. Water-quality samples collected at bridge 1,200 ft (370 m) downstream from gage at high flows.

DRAINAGE AREA.--126 mi² (326 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1921 to September 1976, October 1977 to current year.

REVISED RECORDS.--WSP 971: 1942. WSP 1382: 1952-53(M).

GAGE.--Water-stage recorder and concrete control (Aug. 1, 1931, to Aug. 3, 1941, concrete control at site 280 ft or 85 m, downstream). Datum of gage is 335.86 ft (102.370 m) National Geodetic Vertical Datum of 1929. Prior to May 24, 1922, nonrecording gage and May 24, 1922, to July 31, 1931, water-stage recorder, at site of former highway bridge 1,300 ft (400 m) downstream at different datum. Aug. 1, 1931 to July 28, 1939, water-stage recorder at site 100 ft (30 m) downstream at present datum.

REMARKS.-Water-discharge records good except those for winter periods, which are fair. Diurnal fluctuation caused by powerplant above station and flow regulated slightly by Swartswood Lake.

AVERAGE DISCHARGE.--60 years, (water years 1922-76, 1978-82) 193 ft³/s (5.466 m³/s), 20.80 in/yr (528 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,750 ft³/s (248 m³/s) Aug. 19, 1955, gage height, 11.12 ft (3.389 m) from high-water mark in gage house; minimum, about 2.8 ft³/s (0.08 m³/s) Nov. 1, 1922; minimum daily, 5 ft³/s (0.14 m³/s) Aug. 13, 14, 1930.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,000 ft³/s (28.3 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Jan. 5	0645	1180	33.4	3.82	1.164	Aug. 9	1030	1210	34.3	3.91	1.192
Feb. 4	0930	*1300	36.8	*a4.65	1.417						

a Ice jam.

Minimum discharge, 26 ft³/s (0.74 m³/s) Oct. 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	39	56	44	96	206	165	253	326	253	385	77	92
2	57	53	156	151	278	165	230	295	330	278	70	101
3	56	49	159	133	664	174	260	269	286	248	66	168
4	49	47	122	467	1170	156	576	249	274	260	66	131
5	44	48	97	1080	805	160	435	229	238	228	63	103
6	40	55	81	666	561	180	404	211	239	195	63	91
7	41	60	76	462	418	214	371	200	268	174	59	85
8	41	55	91	376	364	355	350	182	228	161	57	79
9	38	47	100	312	336	268	344	177	197	145	594	74
10	34	45	91	261	305	225	331	165	172	135	541	71
11	32	43	75	218	269	230	373	143	158	118	376	68
12	31	44	75	211	243	336	361	130	146	256	292	64
13	30	41	68	182	231	444	339	124	201	288	234	60
14	33	41	64	184	211	435	325	124	424	218	203	58
15	36	45	80	172	200	420	287	111	356	173	178	56
16	32	46	89	158	235	381	265	104	290	145	150	59
17	30	47	86	144	303	390	258	99	503	128	137	59
18	29	45	86	142	244	392	389	92	456	111	127	54
19	38	44	70	167	232	387	356	88	349	100	111	53
20	42	51	65	169	230	370	305	86	295	183	100	52
21	38	68	69	140	260	357	280	84	255	259	92	56
22	34	65	73	130	243	350	255	84	235	192	85	61
23	35	54	82	140	234	320	234	94	347	146	83	88
24	58	50	108	160	240	294	218	101	301	123	81	97
25	54	48	110	130	213	275	206	99	240	105	236	79
26	62	43	94	120	184	300	237	92	205	96	313	66
27	78	42	94	115	181	311	459	84	188	88	213	110
28	105	44	89	116	171	262	518	83	177	107	164	148
29	98	42	85	110	---	240	450	404	300	110	131	108
30	76	40	81	105	---	228	371	398	591	96	109	88
31	61	---	73	130	---	224	---	318	---	83	98	---
TOTAL	1471	1458	2733	7147	9231	9008	10040	5245	8502	5334	5169	2479
MEAN	47.5	48.6	88.2	231	330	291	335	169	283	172	167	82.6
MAX	105	68	159	1080	1170	444	576	404	591	385	594	168
MIN	29	40	44	96	171	156	206	83	146	83	57	52
CFSM	.38	.39	.70	1.83	2.62	2.31	2.66	1.34	2.25	1.37	1.33	.66
IN.	.43	.43	.81	2.11	2.73	2.66	2.96	1.55	2.51	1.57	1.53	.73

CAL YR 1981 TOTAL 50025 MEAN 137 MAX 1470 MIN 29 CFSM 1.09 IN 14.77
WTR YR 1982 TOTAL 67817 MEAN 186 MAX 1170 MIN 29 CFSM 1.48 IN 20.02

01443500 PAULINS KILL AT BLAIRSTOWN, NJ--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1921, 1925, 1957-60, 1962-63, 1976 to current year.

COOPERATION.--Field data and samples for laboratory analyses supplied by New Jersey Department of Environmental Protection, Division of Water Resources. Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	STREP-TOCOCCI FECAL (MPN)	HARD-NESS (MG/L AS CACO3)
OCT										
14...	1040	31	380	8.2	7.5	11.8	E2.6	<20	<2	162
MAR										
04...	1050	152	364	8.0	.0	14.3	E1.9	220	23	134
APR										
20...	1050	309	328	8.1	12.0	10.8	<1.0	170	13	125
MAY										
25...	1200	99	380	7.9	15.0	10.0	E2.1	220	130	149
JUL										
14...	1200	219	357	8.0	22.0	8.6	E2.0	790	1600	143
AUG										
03...	1230	65	403	8.6	20.5	9.5	E1.9	230	70	173
SEP										
27...	1045	102	430	8.2	16.0	10.0	E2.3	170	350	172

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
OCT									
14...	40	15	18	1.6	130	--	25	34	.1
MAR									
04...	34	12	16	1.5	110	--	27	30	.1
APR									
20...	32	11	16	1.2	95	--	22	30	<.1
MAY									
25...	35	15	18	1.1	123	--	23	32	.1
JUL									
14...	34	14	19	.8	117	--	19	30	.1
AUG									
03...	43	16	18	.9	136	--	18	30	.1
SEP									
27...	41	17	20	1.9	125	<.5	24	33	.2

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT									
14...	--	236	.010	.25	--	<.05	--	.18	2.7
MAR									
04...	5.0	209	E.010	.80	.130	.63	1.4	.12	3.9
APR									
20...	2.9	198	.020	.50	.250	.35	.85	.12	3.2
MAY									
25...	2.9	229	E.020	.20	.080	E.35	--	.18	2.9
JUL									
14...	5.2	214	.020	.30	.130	.60	.90	.25	4.3
AUG									
03...	5.5	264	<.010	.10	<.050	.58	.68	.18	5.1
SEP									
27...	2.4	235	<.010	.10	E.050	.37	.47	.15	2.6

01443500 PAULINS KILL AT BLAIRSTOWN, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	NITROGEN,NH4 + ORG. TOT IN BOT MAT (MG/KG AS N)	CARBON, INORGANIC, TOT IN BOT MAT (G/KG AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (G/KG AS C)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)
OCT 14...	1040	783	4.5	13	--	--	0	--	--	--	<1
SEP 27...	1045	2900	2.2	21	10	1	<1	<10	40	<1	<1

DATE	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)
OCT 14...	--	<1	<10	--	2	--	260	--	<10	--	620
SEP 27...	10	3	10	5	5	240	1900	3	30	20	50

DATE	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, RECOV. FM BOTTOM MATERIAL (UG/G AS NI)	SELENIUM, TOTAL (UG/L AS SE)	SELENIUM, TOTAL IN BOTTOM MATERIAL (UG/G)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	PCN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT 14...	--	<.01	--	<10	--	<1	--	25	1	<1.0	<.1
SEP 27...	.1	<.01	2	<10	<1	<1	10	33	9	<1.0	<.1

DATE	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIAZINON, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ETHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)
OCT 14...	1.0	<.1	.1	.2	<.1	<.1	<.1	<.1	<.1	<.1	<.1
SEP 27...	<1.0	1.0	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1

DATE	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	MALATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARATHION, TOT. IN BOTTOM MATL. (UG/KG)	METHYL TRITHION, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	PARATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	PERTHANE IN BOTTOM MATERIL (UG/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)	TRITHION, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT 14...	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.10	<1.0	<.1
SEP 27...	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<1.00	<10	<.1

01443900 YARDS CREEK NEAR BLAIRSTOWN, NJ

LOCATION.--Lat 40°58'51", long 75°02'25", Warren County, Hydrologic Unit 02040105, on left bank 100 ft (30 m) upstream from bridge on Hainesburg-Mount Vernon Road, 1.4 mi (2.3 km) downstream of Yards Creek Reservoir, 2.2 mi (3.5 km) northeast of Hainesburg, 2.4 mi (3.9 km) upstream from mouth, and 4.2 mi (6.8 km) west of Blairstown.

DRAINAGE AREA.--5.34 mi^2 (13.83 km^2), revised.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1966 to current year.

REVISED RECORDS.--WDR NJ-77-2: 1976. WDR NJ-79-2: 1977 (m).

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 608 ft (185 m), from topographic map.

REMARKS.--Water-discharge records fair except those for periods of no gage-height record, which are poor. No gage-height record Dec. 12 to Jan. 29, Apr. 6 to May 5, and Aug. 22 to Sept. 30. Complete regulation by the Jersey Central Power and Light Co., at Yards Creek Reservoir 1.4 mi (2.3 km) above station.

AVERAGE DISCHARGE.--16 years, 10.9 ft^3/s (0.309 m^3/s).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 583 ft^3/s (16.5 m^3/s), Feb. 24, 1977, gage height, 3.92 ft (1.195 m); no flow Sept. 12, 1971.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 342 ft^3/s (9.69 m^3/s) Jan. 5, gage height, 3.43 ft (1.045 m); minimum, 0.59 ft^3/s (0.017 m^3/s) Oct. 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.81	1.4	1.7	2.0	20	4.9	20	21	27	39	1.2	1.9
2	1.3	1.2	6.1	2.5	17	4.9	17	17	41	44	1.0	2.2
3	.87	1.1	2.7	2.2	34	4.9	20	16	39	42	1.0	2.3
4	1.0	1.1	3.5	21	43	5.6	19	15	43	36	1.0	2.0
5	.74	1.1	4.9	180	39	5.7	15	15	40	31	1.1	1.8
6	.79	2.6	1.7	92	39	5.2	16	15	35	31	1.6	1.8
7	.83	2.1	1.6	31	37	6.6	18	16	26	25	2.7	1.7
8	.84	1.3	2.6	7.6	28	5.8	13	14	12	11	1.2	1.8
9	.84	1.1	2.0	9.0	12	5.3	10	12	12	12	39	1.7
10	.87	1.1	1.8	6.2	12	6.0	8.2	12	12	11	28	1.7
11	.75	1.1	2.1	4.1	14	5.8	7.1	12	8.9	10	24	1.6
12	.76	1.0	1.3	3.5	15	9.9	6.5	12	3.4	20	23	1.7
13	.75	1.0	1.6	3.1	12	9.1	7.1	13	6.8	12	23	1.7
14	.82	1.6	2.2	11	13	8.1	7.7	11	5.5	12	24	1.6
15	.77	1.1	3.8	6.7	10	7.0	6.4	2.2	3.5	12	20	1.5
16	.78	1.3	4.7	5.1	12	9.2	5.6	1.9	3.8	12	18	1.7
17	.76	1.1	2.8	6.0	12	22	4.9	1.7	9.9	12	19	1.5
18	.99	1.1	3.2	5.2	13	22	11	1.7	18	11	19	1.4
19	1.2	.85	2.7	6.4	13	22	6.8	1.7	16	10	19	1.5
20	.83	1.8	2.3	7.9	13	21	5.5	1.8	11	13	20	1.6
21	.79	2.9	2.0	9.7	12	20	6.0	1.8	11	12	20	1.9
22	.78	2.0	2.2	18	11	18	5.1	2.1	11	12	8.2	2.6
23	1.6	1.1	2.5	19	12	18	4.2	2.1	14	6.7	2.1	6.3
24	1.7	1.0	2.0	24	12	20	3.8	1.7	12	1.4	1.8	2.2
25	1.1	1.1	1.4	13	13	20	3.5	1.7	17	1.3	5.8	1.7
26	1.7	2.9	1.1	11	15	22	3.3	1.6	15	1.3	20	1.5
27	3.1	1.1	1.1	9.4	6.1	22	92	1.6	13	1.3	7.7	7.1
28	5.2	.98	2.4	8.8	5.0	20	83	1.9	11	2.2	2.6	2.4
29	2.3	1.8	1.6	12	---	17	42	29	24	1.6	2.3	1.8
30	1.8	.92	1.3	17	---	18	27	23	27	1.3	2.0	1.6
31	1.8	---	1.2	17	---	19	---	21	---	1.3	1.8	---
TOTAL	39.17	41.85	74.1	571.4	494.1	405.0	494.7	299.5	528.8	448.4	361.1	63.8
MEAN	1.26	1.40	2.39	18.4	17.6	13.1	16.5	9.66	17.6	14.5	11.6	2.13
MAX	5.2	2.9	6.1	180	43	22	92	29	43	44	39	7.1
MIN	.74	.85	1.1	2.0	5.0	4.9	3.3	1.6	3.4	1.3	1.0	1.4

CAL YR 1981 TOTAL 2342.17 MEAN 6.42 MAX 122 MIN .73
WTR YR 1982 TOTAL 3821.92 MEAN 10.5 MAX 180 MIN .74

01444100 PAULINS KILL AT MOUTH AT COLUMBIA, NJ

LOCATION.--Lat 40°55'14", long 75°05'18", Warren County, Hydrologic Unit 02040206, at bridge on U.S. Route 46 in Columbia, 2.3 mi (3.7 km) southwest of Polkville, and 3.2 mi (5.2 km) southeast of Knowlton.

DRAINAGE AREA.--177 mi² (458 km²).

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976 to current year.

COOPERATION.--Field data and samples for laboratory analyses supplied by New Jersey Department of Environmental Protection, Division of Water Resources. Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	STREP-TOCOCCI FECAL (MPN)	HARD-NESS (MG/L AS CACO3)
OCT										
14...	1300	--	410	8.4	11.0	13.4	E2.1	20	13	170
MAR										
01...	1000	--	344	7.9	1.5	12.9	E1.2	80	17	130
APR										
20...	1150	--	309	7.8	12.0	10.4	<1.0	130	13	120
MAY										
25...	1300	--	370	7.9	13.5	10.0	E1.7	170	49	150
JUL										
14...	1230	--	--	7.7	22.0	8.6	E2.0	490	540	120
AUG										
24...	1215	--	360	8.2	16.0	10.4	E2.3	210	22	160
SEP										
27...	1300	--	418	8.2	16.0	10.1	E2.4	700	170	180

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
OCT									
14...	40	16	17	1.7	140	--	25	30	<.1
MAR									
01...	32	12	15	1.5	93	--	25	28	<.1
APR									
20...	30	11	14	1.1	92	--	22	26	<.1
MAY									
25...	35	15	15	1.1	122	<.5	24	27	<.1
JUL									
14...	29	12	15	.7	106	--	19	25	.1
AUG									
24...	38	15	12	1.1	123	--	18	21	.2
SEP									
27...	43	17	18	1.7	124	<.5	25	30	.1

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT									
14...	--	241	.010	.40	--	<.05	--	.09	2.4
MAR									
01...	5.2	210	.010	1.0	<.050	1.50	2.5	.09	2.1
APR									
20...	3.4	179	.020	.50	.200	.50	1.0	.12	2.6
MAY									
25...	3.7	240	E.020	.60	.080	E.40	--	.15	2.6
JUL									
14...	5.0	199	.020	.30	.150	.53	.83	.18	4.7
AUG									
24...	3.7	192	<.010	.50	<.050	.32	.82	.12	3.5
SEP									
27...	2.4	230	<.010	.30	E.060	.42	.72	.15	2.4

01444100 PAULINS KILL AT MOUTH AT COLUMBIA, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)
MAY								
25...	1300	<10	1	<10	<10	1	10	4
SEP								
27...	1300	10	1	<10	20	<1	10	7

DATE	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	PHENOLS (UG/L)
MAY								
25...	250	4	50	<.1	2	<1	20	2
SEP								
27...	210	4	40	<.1	2	<1	10	3

01444800 DELAWARE RIVER NEAR RICHMOND, PA (BELVIDERE, NJ)

LOCATION.--Lat 40°49'44", long 75°05'06", Warren County, NJ, Hydrologic Unit 02040104, at bridge at Belvidere, 200 ft (61 m) upstream from Pequest River, and 4.1 mi (6.5 km) southwest of Buttzville.

DRAINAGE AREA.--4,378 mi² (11,339 km²).

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1964, 1976 to June 1982 (discontinued).

COOPERATION.--Field data and samples for laboratory analyses supplied by New Jersey Department of Environmental Protection, Division of Water Resources. Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	STREP-TOCOCCI FECAL (MPN)	HARD-NESS (MG/L AS CACO3)
OCT 08...	1200	112	7.5	12.5	9.7	E2.6	<20	170	33
MAR 01...	1150	119	7.1	2.0	13.1	E1.1	<20	<2	35
APR 26...	1150	85	7.1	12.0	11.5	E1.7	<20	2	28
JUN 08...	1030	83	7.2	16.0	9.2	E1.3	50	350	28

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
OCT 08...	9.9	2.1	6.1	.9	21	.1	15	8.2	<.1
MAR 01...	10	2.5	6.0	.8	17	--	14	9.0	<.1
APR 26...	7.9	1.9	4.6	.7	15	--	14	6.9	<.1
JUN 08...	8.2	1.9	3.9	.7	17	<.5	10	6.7	<.1

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 08...	.9	60	.007	.15	--	<.05	--	.09	2.5
MAR 01...	3.4	78	<.010	.60	<.050	.25	.85	.12	2.0
APR 26...	2.3	56	<.010	.60	<.050	<.05	--	.09	2.6
JUN 08...	3.1	60	<.010	.30	.080	.44	.74	.09	3.1

DATE	TIME	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BERYL-LIUM, TOTAL RECOV-ERABLE (UG/L AS BE)	BORON, TOTAL RECOV-ERABLE (UG/L AS B)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)
OCT 08...	1200	10	2	<10	10	1	20	7
JUN 08...	1030	20	<1	<10	10	<1	10	6

DATE	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	SELE-NIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	PHENOLS (UG/L)
OCT 08...	80	1	20	<.1	2	<1	20	<1
JUN 08...	510	1	100	<.1	2	<1	10	2

01445500 PEQUEST RIVER AT PEQUEST, NJ

LOCATION.--Lat 40°49'50", long 74°58'43", revised, Warren County, Hydrologic Unit 02040105, on right bank at Pequest, 100 ft (30 m) upstream from CONRAIL (formerly Lehigh and Hudson River Railway) bridge, and 300 ft (91 m) downstream from Furnace Brook.

DRAINAGE AREA.--106 mi^2 (275 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1921 to current year. Monthly discharge only for October 1921, published in WSP 1302.

REVISED RECORDS.--WSP 1902: 1940(M), 1945, 1955(M), 1957, 1959(M).

GAGE.--Water-stage recorder. Concrete control since Sept. 29, 1929. Datum of gage is 398.78 ft (121.548 m) National Geodetic Vertical Datum of 1929. Prior to June 22, 1926, nonrecording gage at site 10 ft (3 m) upstream at same datum.

REMARKS.--Water-discharge records good.

AVERAGE DISCHARGE.--61 years, 153 ft^3/s (4.333 m^3/s), 19.23 in/yr (488 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,130 ft^3/s (60.3 m^3/s) Jan. 25, 1979, gage height, 5.97 ft (1.820 m) from floodmark; minimum, 12 ft^3/s (0.34 m^3/s) Aug. 17-22, Dec. 10, 1965.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 650 ft^3/s (18.4 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Jan. 4	1915	788	22.3	3.45	1.052
Feb. 4	1800	*927	26.3	3.76	1.146
June 17	0800	677	19.2	3.19	0.972
June 30	0230	652	18.5	3.13	0.954
Aug. 10	0615	681	19.3	3.20	0.975

Minimum discharge, 30 ft^3/s (0.85 m^3/s) Oct. 16, 17, 18, gage height, 1.24 ft (0.378 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	32	72	46	141	353	127	173	256	229	327	81	72
2	54	57	217	185	278	128	162	233	384	235	75	81
3	50	52	155	130	623	129	201	220	252	196	72	104
4	42	48	108	465	844	120	369	208	226	200	69	100
5	40	51	92	556	580	123	287	192	198	181	69	83
6	38	74	81	382	476	129	261	179	211	161	69	76
7	38	76	74	318	341	186	248	174	226	143	65	74
8	36	63	80	268	292	262	253	166	195	135	61	71
9	34	63	90	215	263	197	256	160	168	125	239	66
10	33	59	77	163	237	163	258	150	147	115	574	63
11	32	57	65	104	207	180	301	140	138	110	343	58
12	32	56	65	131	186	237	290	135	130	148	252	54
13	33	54	60	127	181	263	259	131	200	169	201	54
14	33	52	56	121	164	262	244	126	425	150	164	53
15	33	51	71	121	160	233	224	121	300	123	136	51
16	32	61	79	111	181	215	210	112	240	111	119	50
17	30	65	78	96	202	245	203	116	548	101	109	49
18	32	60	80	90	180	239	321	121	368	95	101	47
19	45	57	52	93	175	223	295	108	292	89	92	45
20	42	67	64	95	198	208	257	102	242	104	87	44
21	38	89	59	93	217	212	233	100	214	119	82	47
22	37	73	63	88	207	219	214	98	197	103	79	53
23	40	65	80	84	195	197	199	109	217	89	78	62
24	61	61	128	100	190	181	192	112	205	82	79	66
25	55	51	111	94	165	171	181	106	180	76	117	61
26	89	47	88	90	137	191	213	98	161	73	133	52
27	103	46	91	86	140	196	327	90	151	75	112	84
28	155	45	89	86	131	173	438	87	144	128	95	89
29	120	43	91	83	---	159	351	423	219	148	82	75
30	95	42	89	80	---	151	292	342	514	109	78	65
31	83	---	77	84	---	156	---	310	---	90	75	---
TOTAL	1617	1757	2656	4880	7503	5875	7712	5025	7321	4110	3988	1949
MEAN	52.2	58.6	85.7	157	268	190	257	162	244	133	129	65.0
MAX	155	89	217	556	844	263	438	423	548	327	574	104
MIN	30	42	46	80	131	120	162	87	130	73	61	44
CFSM	.49	.55	.81	1.48	2.53	1.79	2.43	1.53	2.30	1.26	1.22	.61
IN.	.57	.62	.93	1.71	2.63	2.06	2.71	1.76	2.57	1.44	1.40	.68

CAL YR 1981 TOTAL 38249 MEAN 105 MAX 826 MIN 29 CFSM .99 IN 13.42
WTR YR 1982 TOTAL 54393 MEAN 149 MAX 844 MIN 30 CFSM 1.41 IN 19.09

01446000 BEAVER BROOK NEAR BELVIDERE, NJ

LOCATION.--Lat 40°50'40", long 75°02'48", Warren County, Hydrologic Unit 02040105, 2,000 ft (610 m) upstream from mouth, and 2.0 mi (3.2 km) east of Belvidere.

DRAINAGE AREA.--36.7 mi² (95.1 km²).

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1923-25, 1958, 1976 to May 1982 (discontinued).

COOPERATION.--Field data and samples for laboratory analyses supplied by New Jersey Department of Environmental Protection, Division of Water Resources. Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	STREPTOCOCCI FECAL (MPN)	HARDNESS (MG/L AS CACO3)
MAR									
02...	1250	352	7.9	4.5	13.4	E1.7	90	17	175
APR									
05...	1150	354	7.8	4.0	13.2	<.8	40	240	154
MAY									
19...	1130	418	8.1	16.5	9.6	E1.8	700	130	184

DATE	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
MAR									
02...	42	17	9.6	1.2	140	--	30	18	<.1
APR									
05...	37	15	10	1.1	120	--	26	23	.1
MAY									
19...	44	18	10	1.0	163	<.5	27	22	<.1

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
MAR									
02...	4.9	238	<.010	1.2	<.050	.55	1.8	.06	1.5
APR									
05...	5.1	202	.010	.80	.170	E.45	--	.09	2.5
MAY									
19...	4.3	270	.010	1.0	<.050	.30	1.3	.09	2.8

DATE	TIME	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)
MAY								
19...	1130	<10	1	<10	<10	<1	10	4

DATE	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	PHENOLS (UG/L)
MAY								
19...	210	6	30	<.1	5	<1	100	6

01446400 PEQUEST RIVER AT BELVIDERE, NJ

LOCATION.--Lat 40°49'45", long 75°04'44", Warren County, Hydrologic Unit 02040105, at last highway bridge before mouth in Belvidere, and 0.3 mi (0.4 km) upstream from mouth.

DRAINAGE AREA.--157 mi² (407 km²).

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1957, 1962, 1976 to May 1982 (discontinued).

COOPERATION.--Field data and samples for laboratory analyses supplied by New Jersey Department of Environmental Protection, Division of Water Resources. Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	STREP-TOCOCCI FECAL (MPN)	HARD-NESS (MG/L AS CACO3)
OCT 08...	1330	74	482	8.5	11.0	11.9	E1.9	170	350	210
MAR 02...	1200	215	442	8.3	5.0	14.1	E1.9	20	5	190
APR 05...	1200	440	370	8.2	5.0	13.5	E1.5	50	79	160
MAY 19...	1230	175	455	8.2	16.5	10.2	E2.8	490	130	190

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
OCT 08...	49	22	13	1.7	190	.1	35	24	<.1
MAR 02...	45	20	11	1.4	160	--	33	23	<.1
APR 05...	37	17	13	1.2	130	--	29	22	<.1
MAY 19...	44	20	9.9	1.1	180	--	29	30	<.1

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 08...	5.3	282	.010	.79	--	<.05	--	.12	4.4
MAR 02...	5.6	279	<.010	1.0	<.050	.36	1.4	.09	2.4
APR 05...	6.0	195	.010	.80	.170	E.80	--	.15	3.9
MAY 19...	4.4	233	.020	1.0	<.050	.45	1.4	.12	3.9

01446400 PEQUEST RIVER AT BELVIDERE, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	NITROGEN, NH4 + ORG. TOT IN BOT MAT (MG/KG AS N)	CARBON, INORGANIC, TOT IN BOT MAT (G/KG AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (G/KG AS C)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)
OCT											
08...	1330	4740	14	23	<10	3	0	<10	40	1	<1

DATE	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)
OCT											
08...	20	1	<10	5	5	160	60	1	20	20	140

DATE	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, RECOV. FM BOTTOM MATERIAL (UG/G AS NI)	SELENIUM, TOTAL (UG/L AS SE)	SELENIUM, TOTAL IN BOTTOM MATERIAL (UG/G)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	PHENOLS (UG/L)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	PCN, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT											
08...	<.1	<.01	3	<10	<1	<1	20	22	1	2	<1.0

DATE	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIAZINON, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ETHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT											
08...	<.1	9.0	1.9	<.1	<.1	<.1	.2	<.1	<.1	<.1	<.1

DATE	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	MALATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARATHION, TOT. IN BOTTOM MATL. (UG/KG)	METHYL TRITHION, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	PARATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	PERTHANE IN BOTTOM MATERIL (UG/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)	TRITHION, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT											
08...	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.10	<1.0	<.1

01446500 DELAWARE RIVER AT BELVIDERE, NJ

LOCATION.--Lat 40°49'36", long 75°05'02", Warren County, Hydrologic Unit 02040105, on left bank at Belvidere, 800 ft (240 m) downstream from Pequest River, and at channel mile 197.7 (318.1 km).

DRAINAGE AREA.--4,535 mi² (11,746 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1922 to current year.

REVISED RECORDS.--WSP 781: 1933(M). WSP 951: 1940-41, Drainage area. WSP 1432: 1923, 1924(M).

GAGE.--Water-stage recorder. Datum of gage is 226.43 ft (69.016 m) National Geodetic Vertical Datum of 1929. Prior to Jan. 1, 1929, nonrecording gage at site 200 ft (61 m) upstream at same datum.

REMARKS.--Water-discharge records good. Diurnal fluctuations at medium and low flow caused by powerplants on tributary streams. Flow regulated by Lake Wallenpaupack, and by Pepacton, Cannonsville, Swinging Bridge, Toronto, Cliff Lake, and Neversink Reservoirs (see Delaware River Basin, reservoirs in) and smaller reservoirs. Diversion from Pepacton, Cannonsville, and Neversink Reservoirs (see Delaware River Basin, diversions).

AVERAGE DISCHARGE.--60 years, 7,888 ft³/s (223.4 m³/s), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 273,000 ft³/s (7,730 m³/s) Aug. 19, 1955, gage height, 30.21 ft (9.208 m) from high-water mark in gage house, from rating curve extended above 170,000 ft³/s (4,810 m³/s) on basis of flood-routing study; minimum, 609 ft³/s (17.2 m³/s) Sept. 28, 29, 1943, gage height, 2.11 ft (0.643 m).

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Oct. 10, 1903, reached a stage of 28.6 ft (8.72 m), from floodmark, discharge, 220,000 ft³/s (6,230 m³/s) from rating curve extended above 170,000 ft³/s (4,810 m³/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 44,500 ft³/s (1,260 m³/s) Apr. 5, gage height, 11.90 ft (3.627 m); minimum, 1,500 ft³/s (42.5 m³/s) Dec. 21, gage height, 2.99 ft (0.911 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2270	5660	2710	4150	3900	3770	17000	11400	5180	10200	2250	2310
2	2490	4980	4080	4490	4490	4220	24100	10100	7390	8490	2370	2360
3	2740	4660	4650	3990	8320	4410	21300	9470	9380	7250	2310	3040
4	2610	4680	5580	7160	15400	4060	32400	9190	9570	6530	2250	2790
5	2340	4340	5480	14500	21800	3690	37000	8730	8300	5600	2230	2760
6	2310	4430	4770	17600	19400	4370	26500	7900	8000	4910	2150	2620
7	2330	4520	4320	14400	14900	4190	22400	7330	8580	4680	2280	2550
8	2160	4440	3940	11900	11800	5610	18900	6900	10600	4670	2350	2430
9	2170	4160	4190	8930	10400	5200	16600	5890	9960	4300	5060	2400
10	2540	3450	4110	6530	9190	4610	14900	5190	8620	3890	5340	2420
11	2400	3430	3490	4190	7770	4730	14600	5130	7530	3410	4430	2540
12	2270	3880	3320	4760	6770	5380	14500	5110	6800	3620	3740	2550
13	2150	3610	3290	4580	6310	8280	13700	4670	7070	3690	3250	2560
14	2170	3560	3000	4520	5890	10400	13300	4350	10400	3870	2890	2620
15	2270	3160	2860	4810	5700	13200	13200	4030	11700	3730	2690	2570
16	2140	2760	3060	4610	5810	14600	12500	3640	9720	3360	2580	2340
17	2150	2870	2980	4340	6720	14200	12200	3290	9960	3350	2430	2300
18	2190	2900	3260	3830	6650	13300	16900	3090	9490	3090	2390	2270
19	2250	2970	2590	3840	6590	14100	29500	3020	8420	2620	2490	2350
20	2050	3110	2290	4110	6230	16700	22400	3170	7590	3210	2490	2330
21	1920	3450	1880	3950	5920	16900	18800	3370	6590	4100	2490	2330
22	2210	3980	2140	3690	5510	19000	16100	3430	5890	3700	2350	2400
23	2250	4010	2610	3490	5630	19900	14000	3130	6310	3370	2390	2560
24	2570	3710	3730	3560	5880	18200	12400	3270	6140	3020	2270	2560
25	2330	3570	4940	3530	5490	19200	11500	3790	5420	2720	3650	2450
26	2160	3450	5440	3080	4680	22200	11200	4280	4790	2450	4250	2270
27	2870	3160	4840	3220	4550	30400	14900	3950	4220	2330	3230	2630
28	4150	2930	4360	3340	4130	23000	16600	3640	3830	2880	2500	3000
29	10700	2830	4470	3310	---	17100	15200	7030	5820	3060	2650	2580
30	9600	2770	4330	3140	---	14700	13000	6580	10300	2890	2540	2330
31	6900	---	3560	3050	---	13800	---	5590	---	2520	2420	---
TOTAL	93660	111430	116270	174600	225830	373420	537600	169660	233570	127510	88710	75220
MEAN	3021	3714	3751	5632	8065	12050	17920	5473	7786	4113	2862	2507
MAX	10700	5660	5580	17600	21800	30400	37000	11400	11700	10200	5340	3040
MIN	1920	2760	1880	3050	3900	3690	11200	3020	3830	2330	2150	2270

CAL YR 1981 TOTAL 1985570 MEAN 5440 MAX 49200 MIN 1330
WTR YR 1982 TOTAL 2327480 MEAN 6377 MAX 37000 MIN 1880

01447000 DELAWARE RIVER AT NORTHAMPTON STREET AT EASTON, PA

LOCATION.--Lat 40°41'30", long 75°12'15", Northampton County, Hydrologic Unit 02040105, at bridge on Northampton Street in Easton, 600 ft (182 m) upstream from Lehigh River, and 0.2 mi (0.3 km) downstream from U.S. Route 22 toll bridge in Easton.

DRAINAGE AREA.--4,717 mi^2 (12,217 km^2).

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976 to current year.

COOPERATION.--Field data and samples for laboratory analyses supplied by New Jersey Department of Environmental Protection, Division of Water Resources. Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	STREP-TOCOCCI FECAL (MPN)	HARD-NESS (MG/L AS CACO3)
OCT 19...	1400	147	7.7	12.0	11.5	E2.6	<20	33	51
FEB 09...	1250	124	7.0	.5	14.2	E1.0	<20	22	40
APR 21...	1300	88	6.7	10.5	--	<.6	<20	2	28
JUN 07...	1230	119	7.5	16.5	--	E1.8	20	170	44
JUL 21...	1230	154	7.5	26.0	8.8	E2.1	330	130	54
AUG 24...	1345	174	8.6	20.0	9.3	E2.2	20	33	66
SEP 23...	1215	157	7.9	17.5	9.2	E1.4	40	170	59

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
OCT 19...	14	3.8	7.4	1.0	30	--	20	13	<.1
FEB 09...	11	3.0	6.0	.9	18	--	15	8.9	<.1
APR 21...	7.9	2.0	3.9	.7	15	--	12	6.5	<.1
JUN 07...	12	3.3	6.6	.8	29	--	14	7.9	<.1
JUL 21...	15	4.1	6.8	.7	39	--	16	9.8	.1
AUG 24...	18	5.1	6.0	.8	45	--	18	10	<.1
SEP 23...	16	4.7	7.2	1.1	33	<.5	18	9.5	<.1

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 19...	.9	91	<.010	.40	--	.50	.90	.12	1.5
FEB 09...	4.4	53	.020	.90	.130	.28	1.2	.09	2.9
APR 21...	2.8	57	<.010	.60	.260	E.35	--	.06	3.1
JUN 07...	3.7	77	<.010	.50	.060	.58	1.1	.09	4.1
JUL 21...	2.8	101	.010	.50	<.050	.40	.90	.12	3.7
AUG 24...	2.1	89	.010	.60	.050	.24	.84	.09	2.8
SEP 23...	2.1	98	<.010	.80	.100	.21	1.0	.15	3.0

01447000 DELAWARE RIVER AT NORTHAMPTON STREET AT EASTON, PA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)
SEP								
23...	1215	20	3	<10	20	<1	<10	3

DATE	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	PHENOLS (UG/L)
SEP								
23...	120	24	10	<.1	3	<1	20	1

01455100 LOPATCONG CREEK AT PHILLIPSBURG, NJ

LOCATION.--Lat 40°40'38", long 75°10'13", Warren County, Hydrologic Unit 02040105, at bridge on Lock Street in Phillipsburg, and 0.9 mi (1.4 km) upstream from mouth.

DRAINAGE AREA.--14.2 mi² (36.8 km²).

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1959-62, January 1979 to May 1982 (discontinued).

COOPERATION.--Field data and samples for laboratory analyses supplied by New Jersey Department of Environmental Protection, Division of Water Resources. Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	STREP-TOCOCCI FECAL (MPN)	HARD-NESS (MG/L AS CACO3)
OCT 07...	1200	7.2	454	7.8	11.5	10.2	E2.5	5400	220	220
FEB 04...	1200	62	262	7.7	3.0	14.1	E2.2	1100	>2400	95
APR 07...	1145	32	402	8.3	6.5	13.6	<.9	940	49	150
MAY 24...	1130	32	325	7.2	11.0	9.7	E1.5	3500	>2400	140

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
OCT 07...	45	26	10	1.7	160	--	32	12	<.1
FEB 04...	23	9.2	12	2.5	62	--	24	17	.1
APR 07...	35	16	14	1.4	120	--	33	25	<.1
MAY 24...	31	15	6.9	1.3	107	<.5	32	10	<.1

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 07...	14	228	<.010	4.3	--	E.05	--	<.06	.1
FEB 04...	9.0	166	.050	2.1	--	.82	2.9	.25	3.4
APR 07...	12	204	<.010	2.8	E.200	--	--	.06	.5
MAY 24...	13	212	.010	2.6	.050	E.05	--	.12	1.0

01455100 LOPATCONG CREEK AT PHILLIPSBURG, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	NITROGEN,NH4 + ORG. TOT IN BOT MAT (MG/KG AS N)	CARBON, INORGANIC, TOT IN BOT MAT (G/KG AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (G/KG AS C)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)
OCT 07...	1200	2450	5.8	21	--	--	0	--	--	--	<1
MAY 24...	1130	--	--	--	70	1	--	<10	10	<1	--

DATE	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)
OCT 07...	--	2	<10	--	3	--	140	--	20	--	330
MAY 24...	10	--	--	2	--	220	--	2	--	20	--

DATE	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, RECOV. FM BOTTOM MATERIAL (UG/G AS NI)	SELENIUM, TOTAL (UG/L AS SE)	SELENIUM, TOTAL IN BOTTOM MATERIAL (UG/G)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	PHENOLS (UG/L)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	PCN, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT 07...	--	<.01	--	<10	--	<1	--	21	--	2	<1.0
MAY 24...	<.1	--	2	--	<1	--	30	--	1	--	--

DATE	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIAZINON, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ETHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT 07...	<.1	6.0	<.1	.5	.7	<.1	<.1	<.1	<.1	<.1	<.1
MAY 24...	--	--	--	--	--	--	--	--	--	--	--

DATE	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	MALATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARATHION, TOT. IN BOTTOM MATL. (UG/KG)	METHYL TRITHION, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	PARATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	PERTHANE IN BOTTOM MATERIL (UG/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)	TRITHION, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT 07...	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.10	<1.0	<.1
MAY 24...	--	--	--	--	--	--	--	--	--	--	--

01455200 POHATCONG CREEK AT NEW VILLAGE, NJ

LOCATION.--Lat 40°42'57", long 75°04'20", Warren County, Hydrologic Unit 02040105, at bridge on Edison Road, 0.4 mi (0.6 km) southeast of New Village, and 4.3 mi (6.9 km) upstream from Merrill Creek.

DRAINAGE AREA.--33.3 mi^2 (86.2 km^2).

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1959, 1962 and January 1979 to current year.

COOPERATION.--Field data and samples for laboratory analyses supplied by New Jersey Department of Environmental Protection, Division of Water Resources. Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	STREP-TOCOCCI FECAL (MPN)	HARD-NESS (MG/L AS CACO3)
OCT 19...	1230	217	8.0	9.0	11.9	E5.3	5400	>2400	73
FEB 04...	1300	129	7.4	1.0	14.8	2.8	490	>2400	34
APR 07...	1015	178	7.8	.0	14.4	E1.8	110	49	53
MAY 24...	1230	172	7.3	12.0	9.8	E2.4	1700	1600	58
JUL 12...	1030	198	7.5	21.0	8.4	2.6	>2400	>2400	73
AUG 19...	1030	226	8.1	17.0	11.5	<1.2	1100	350	83
SEP 23...	1030	201	8.4	15.5	10.5	E2.4	9200	>2400	77

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
OCT 19...	17	7.3	10	3.6	48	--	22	15	.1
FEB 04...	8.5	3.2	8.0	1.9	17	--	14	11	.1
APR 07...	13	5.0	10	1.2	30	--	19	16	<.1
MAY 24...	14	5.6	8.3	1.6	40	--	18	10	<.1
JUL 12...	17	7.3	11	1.8	50	--	18	11	<.1
AUG 19...	19	8.6	9.7	1.6	66	--	18	12	.1
SEP 23...	18	7.9	9.9	2.4	55	<.5	18	14	<.1

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 19...	12	141	.050	1.7	--	.80	2.5	1.60	5.6
FEB 04...	7.4	93	.040	.80	--	.98	1.8	.37	5.2
APR 07...	11	90	.010	1.0	.630	E1.00	--	.37	2.2
MAY 24...	13	105	.070	1.3	.200	E.60	--	.44	4.3
JUL 12...	15	129	.030	1.4	.150	.83	2.2	.40	4.6
AUG 19...	12	138	.020	1.7	<.050	.41	2.1	.55	3.8
SEP 23...	13	135	.030	1.7	.050	.42	2.1	77	2.0

01455200 POHATCONG CREEK AT NEW VILLAGE, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	NITROGEN, NH4 + ORG. TOT IN BOT MAT (MG/KG AS N)	CARBON, INORGANIC, TOT IN BOT MAT (G/KG AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (G/KG AS C)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)
OCT 19...	1230	31200	.1	11	--	--	<1	--	--	--	<1
SEP 23...	1030	--	--	--	10	1	--	<10	30	<1	--

DATE	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)
OCT 19...	--	9	<10	--	5	--	2600	--	20	--	72
SEP 23...	10	--	--	4	--	220	--	4	--	<10	--

DATE	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, RECOV. FM BOTTOM MATERIAL (UG/G AS NI)	SELENIUM, TOTAL (UG/L AS SE)	SELENIUM, TOTAL IN BOTTOM MATERIAL (UG/G)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	PHENOLS (UG/L)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	PCN, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT 19...	--	<.01	--	<10	--	<1	--	27	--	2	<1.0
SEP 23...	<.1	--	2	--	<1	--	20	--	<1	--	--

DATE	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIAZINON, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ETHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT 19...	<.1	<1.0	1.2	1.5	<.1	<.1	.2	<.1	<.1	<.1	<.1
SEP 23...	--	--	--	--	--	--	--	--	--	--	--

DATE	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	MALATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARATHION, TOT. IN BOTTOM MATL. (UG/KG)	METHYL TRITHION, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	PARATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	PERTHANE IN BOTTOM MATERIL (UG/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)	TRITHION, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT 19...	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.10	<1.0	<.1
SEP 23...	--	--	--	--	--	--	--	--	--	--	--

01455300 POHATCONG CREEK AT CARPENTERSVILLE, NJ

LOCATION.--Lat 40°37'30", long 75°11'10", Warren County, Hydrologic Unit 02040105, at bridge on Carpentersville-Riegelsville Road in Carpentersville, and 2,000 ft (610 m) upstream from mouth.

DRAINAGE AREA.--57.0 mi^2 (147.6 km^2).

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1959-62, 1976 to current year.

COOPERATION.--Field data and samples for laboratory analyses supplied by New Jersey Department of Environmental Protection, Division of Water Resources. Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	STREP-TOCOCCI FECAL (MPN)	HARD-NESS (MG/L AS CACO3)
OCT 07...	1030	--	311	7.9	11.5	10.8	4.2	490	540	170
FEB 04...	1100	105	150	7.2	1.0	14.1	3.2	9200	>2400	46
APR 07...	1315	12	261	8.4	3.5	14.3	<1.2	490	27	100
MAY 24...	1000	--	250	7.8	12.0	9.7	E2.3	1700	920	100
JUL 12...	1230	--	303	7.9	20.0	9.2	E1.3	2400	>2400	130
AUG 19...	1200	--	342	8.4	15.0	9.5	<1.0	1300	130	150
SEP 23...	1345	--	329	8.2	14.5	9.8	E2.1	1700	>2400	150

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
OCT 07...	36	19	9.3	2.1	130	--	28	10	<.1
FEB 04...	11	4.4	7.9	2.7	26	--	14	9.3	.1
APR 07...	22	11	8.1	1.4	73	--	24	13	<.1
MAY 24...	23	11	6.8	1.5	80	<.5	24	9.8	<.1
JUL 12...	29	15	9.4	1.5	104	--	24	8.7	<.1
AUG 19...	33	17	7.4	1.7	124	--	27	10	<.1
SEP 23...	33	17	8.4	1.9	114	--	25	11	.1

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 07...	8.7	207	<.010	2.2	--	.40	2.6	.34	1.6
FEB 04...	6.1	94	.050	.90	--	1.20	2.1	.45	8.9
APR 07...	8.1	126	.010	1.6	.400	E.45	--	.21	1.5
MAY 24...	12	162	.050	2.0	<.050	E.40	--	.28	2.4
JUL 12...	12	197	<.010	1.8	E.120	.22	2.0	.21	2.0
AUG 19...	11	--	<.010	2.2	.050	.41	2.6	.25	2.0
SEP 23...	10	199	<.010	1.7	<.050	.35	2.0	.44	.1

01455300 POHATCONG CREEK AT CARPENTERSVILLE, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	NITROGEN,NH4 + ORG. TOT IN BOT MAT (MG/KG AS N)	CARBON, INORGANIC, TOT IN BOT MAT (G/KG AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (G/KG AS C)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)
MAY											
24...	1000	--	--	--	20	1	--	<10	<10	<1	--
SEP											
23...	1345	360	1.2	8.7	--	--	<1	--	--	--	<1

DATE	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)
MAY											
24...	10	--	--	3	--	480	--	3	--	30	--
SEP											
23...	--	1	10	--	1	--	700	--	<10	--	270

DATE	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, RECOV. FM BOTTOM MATERIAL (UG/G AS NI)	SELENIUM, TOTAL (UG/L AS SE)	SELENIUM, TOTAL IN BOTTOM MATERIAL (UG/G)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	PHENOLS (UG/L)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	PCN, TOTAL IN BOTTOM MATERIAL (UG/KG)
MAY											
24...	<.1	--	<1	--	<1	--	50	--	1	--	--
SEP											
23...	--	<.01	--	<10	--	<1	--	13	--	<1	<1.0

DATE	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIAZINON, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ETHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)
MAY											
24...	--	--	--	--	--	--	--	--	--	--	--
SEP											
23...	<.1	<1.0	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1

DATE	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	MALATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARATHION, TOT. IN BOTTOM MATL. (UG/KG)	METHYL TRITHION, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	PARATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	PERTHANE IN BOTTOM MATERIL (UG/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)	TRITHION, TOTAL IN BOTTOM MATERIAL (UG/KG)
MAY											
24...	--	--	--	--	--	--	--	--	--	--	--
SEP											
23...	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<1.00	<10	<.1

01455500 MUSCONETCONG RIVER AT OUTLET OF LAKE HOPATCONG, NJ

LOCATION.--Lat 40°55'00", long 74°39'55", Morris County, Hydrologic Unit 02040105, just upstream of bridge on Warren County Route 43 and 300 ft (91 m) downstream from Lake Hopatcong dam in Landing.

DRAINAGE AREA.--25.3 mi² (65.5 km²).

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1962, 1976 to current year.

COOPERATION.--Field data and samples for laboratory analyses supplied by New Jersey Department of Environmental Protection, Division of Water Resources. Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	STREPTOCOCCI FECAL (MPN)	HARDNESS (MG/L AS CACO3)
OCT 05...	1030	222	7.7	13.0	10.4	3.6	20	26	53
JAN 27...	1045	244	7.5	.5	13.5	E2.3	<20	<2	53
APR 05...	1030	247	7.6	5.0	12.0	E1.3	<20	2	53
JUN 09...	1230	235	7.2	18.0	8.4	E2.4	<20	920	53
JUL 13...	1200	232	7.2	25.5	8.0	2.7	<20	79	51
AUG 16...	1300	236	8.1	23.0	8.5	E2.5	<20	1600	53

DATE	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
OCT 05...	14	4.5	20	.8	26	<.1	14	35	<.1
JAN 27...	14	4.5	21	1.1	25	--	19	38	<.1
APR 05...	14	4.4	23	.9	26	--	18	44	<.1
JUN 09...	14	4.4	22	.9	28	--	17	40	<.1
JUL 13...	13	4.5	24	.6	26	--	15	40	<.1
AUG 16...	14	4.4	22	.3	29	--	15	41	<.1

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 05...	3.0	119	.020	.05	--	E.20	--	.06	3.2
JAN 27...	4.3	132	.010	.12	--	.33	.45	.06	2.4
APR 05...	1.6	109	<.010	.20	.150	E.65	--	.09	1.8
JUN 09...	1.1	138	<.010	<.10	.080	.70	--	.15	2.9
JUL 13...	1.5	133	<.010	<.10	.070	.45	--	.06	3.8
AUG 16...	3.1	143	<.010	.20	.060	.63	.83	.06	3.9

01455500 MUSCONETCONG RIVER AT OUTLET OF LAKE HOPATCONG, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)
OCT								
05...	1030	10	2	<10	40	<1	10	4

DATE	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	PHENOLS (UG/L)
OCT								
05...	110	5	50	<.1	2	<1	20	2

01455801 MUSCONETCONG RIVER AT LOCKWOOD, NJ

LOCATION.--Lat 40°55'10", long 74°44'07", Sussex County, Hydrologic Unit 02040105, at bridge in Lockwood, at boundary between Sussex County and Morris County, 0.2 mi (0.4 km) southeast of Cage Hill, 0.4 mi (0.7 km) south of Jefferson Lake, and 0.9 mi (1.4 km) downstream from Lubbers Run.

DRAINAGE AREA.--60.1 mi² (155.7 km²).

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976 to current year.

COOPERATION.--Field data and samples for laboratory analyses supplied by New Jersey Department of Environmental Protection, Division of Water Resources. Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	STREP-TOCOCCI FECAL (MPN)	HARD-NESS (MG/L AS CACO3)
OCT 05...	1145	20	358	7.7	12.0	8.8	6.3	330	1600	120
JAN 27...	1230	115	312	7.6	.0	14.1	E1.8	<20	2	78
APR 05...	1200	152	234	7.7	6.0	12.5	E1.2	<20	140	65
JUN 09...	1100	118	273	7.6	17.5	8.0	<5.2	1300	>2400	77
JUL 13...	1130	87	270	7.4	23.0	7.4	E1.9	170	1600	79
AUG 16...	1145	58	320	7.9	20.0	7.7	E2.1	70	350	89

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
OCT 05...	28	13	20	1.8	83	--	19	39	.1
JAN 27...	20	6.9	24	1.2	43	--	20	44	<.1
APR 05...	16	6.1	17	.7	37	--	17	34	<.1
JUN 09...	19	7.1	24	1.2	48	<.5	14	38	<.1
JUL 13...	19	7.7	25	.5	50	--	15	38	.1
AUG 16...	22	8.2	23	.8	58	--	15	44	.1

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 05...	9.2	183	.260	1.3	--	E1.20	--	1.20	3.5
JAN 27...	6.9	164	.010	.30	--	.75	1.0	.12	2.6
APR 05...	3.5	102	<.010	.20	.270	E.60	--	.15	2.1
JUN 09...	4.8	153	.050	.30	.230	1.20	1.5	.44	3.5
JUL 13...	5.5	151	.100	.40	.180	.71	1.1	.37	4.1
AUG 16...	5.1	183	.190	.80	.280	.76	1.6	.49	3.8

01455801 MUSCONETCONG RIVER AT LOCKWOOD, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)
JUN								
09...	1100	30	2	<10	30	1	10	12

DATE	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	PHENOLS (UG/L)
JUN								
09...	750	3	100	<.1	1	<1	20	<1

01456200 MUSCONETCONG RIVER AT BEATTYSTOWN, NJ

LOCATION.--Lat 40°48'48", long 74°50'32", Warren County, Hydrologic Unit 02040105, at bridge at Beattystown, 1.6 mi (2.6 km) upstream of Hanes Brook, 2.1 mi (3.4 km) northeast of Stephensburg, and 3.5 mi (5.7 km) northeast of Scrappy Corner.

DRAINAGE AREA.--90.3 mi^2 (233.9 km^2).

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976 to current year.

COOPERATION.--Field data and samples for laboratory analyses supplied by New Jersey Department of Environmental Protection, Division of Water Resources. Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	STREP-TOCOCCI FECAL (MPN)	HARD-NESS (MG/L AS CACO3)
OCT 05...	1330	42	411	8.2	12.5	11.8	E3.2	40	70	150
JAN 27...	1400	--	338	7.8	.5	13.8	3.3	<20	5	100
APR 05...	1330	280	258	8.5	6.5	13.7	<.9	50	33	81
JUN 09...	1000	165	284	7.8	16.0	9.6	E4.2	70	350	94
JUL 13...	1000	112	301	8.0	21.5	8.6	<.9	270	130	98
AUG 16...	1030	80	322	8.0	17.0	8.8	<1.2	80	170	110

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
OCT 05...	34	15	18	1.9	120	<.1	21	31	.1
JAN 27...	24	10	22	1.3	70	--	21	40	<.1
APR 05...	19	8.2	18	.9	52	--	18	32	<.1
JUN 09...	22	9.4	19	1.0	70	--	15	31	<.1
JUL 13...	23	9.9	17	.8	77	--	15	30	.1
AUG 16...	27	11	16	.7	88	--	15	31	.1

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 05...	7.0	222	.070	1.6	--	E.35	--	1.10	3.1
JAN 27...	8.7	187	.030	.80	--	.70	1.5	.52	2.3
APR 05...	5.4	136	.020	.50	.230	E.65	--	.34	2.5
JUN 09...	6.7	167	.040	.60	.090	.63	1.2	.80	3.8
JUL 13...	6.3	180	.030	.60	.100	.47	1.1	.44	3.5
AUG 16...	7.1	187	.020	.70	.160	.55	1.2	.37	3.3

01456200 MUSCONETCONG RIVER AT BEATTYSTOWN, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	NITROGEN,NH4 + ORG. TOT IN BOT MAT (MG/KG AS N)	CARBON, INORGANIC, TOT IN BOT MAT (G/KG AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (G/KG AS C)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)
OCT 05...	1330	16000	.8	8.4	10	2	0	<10	50	<1	<1

DATE	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)
OCT 05...	10	1	<10	6	2	150	240	1	<10	20	260

DATE	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, RECOV. FM BOTTOM MATERIAL (UG/G AS NI)	SELENIUM, TOTAL (UG/L AS SE)	SELENIUM, TOTAL IN BOTTOM MATERIAL (UG/G)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	PHENOLS (UG/L)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	PCN, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT 05...	<.1	<.01	2	<10	<1	<1	20	15	<1	4	<1.0

DATE	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIAZINON, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ETHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT 05...	<.1	3.0	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1

DATE	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	MALATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARATHION, TOT. IN BOTTOM MATL. (UG/KG)	METHYL TRITHION, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	PARATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	PERTHANE IN BOTTOM MATERIL (UG/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)	TRITHION, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT 05...	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.10	<1.0	<.1

01457000 MUSCONETCONG RIVER NEAR BLOOMSBURY, NJ

LOCATION.--Lat 40°40'20", long 75°03'40", Warren County, Hydrologic Unit 02040105, on right bank just downstream from highway bridge, 1.5 mi (2.4 km) upstream from Bloomsbury, and 9.5 mi (15.3 km) upstream from mouth.

DRAINAGE AREA.--141 mi^2 (365 km^2), revised.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1903 to March 1907, July 1921 to current year.

REVISED RECORDS.--WSP 521: Drainage area. WSP 1051: 1944-45. WSP 1382: 1904-06, 1922, 1923-29(M), 1931(M), 1933-34(M), 1936(M), 1940, 1942(M), 1944-45(M), 1951-52(M).

GAGE.--Water-stage recorder. Concrete control since Sept. 29, 1932. Datum of gage is 274.83 ft (83.768 m) National Geodetic Vertical Datum of 1929. July 1903 to Mar. 31, 1907, nonrecording gage at bridge 15 ft (4.6 m) upstream at different datum. July 26 to Sept. 12, 1921, nonrecording gage at bridge at present datum.

REMARKS.--Water-discharge records good except those for period of ice effect (Jan. 7 to Jan. 28), which are fair. Flow regulated by Lake Hopatcong (see Delaware River Basin, reservoirs in). Diurnal fluctuation caused by small powerplants above station.

AVERAGE DISCHARGE.--64 years (water years 1904-06, 1922-82), 233 ft^3/s (6.599 m^3/s), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,200 ft^3/s (204 m^3/s) Jan. 25, 1979, gage height, 8.50 ft (2.591 m) from floodmark, from rating curve extended above 1,800 ft^3/s (51.0 m^3/s) on basis of slope-area measurement at gage height 6.95 ft (2.118 m); minimum, 8.1 ft^3/s (0.23 m^3/s) Aug. 2, 1955; minimum daily 27 ft^3/s (0.76 m^3/s) Sept. 8, 1966.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,000 ft^3/s (28.3 m^3/s) and maximum (*):

Date	Time	Discharge		Gage height	
		(ft^3/s)	(m^3/s)	(ft)	(m)
Jan. 4	1730	1130	32.0	3.79	1.155
Feb. 3	0715	*2130	60.3	5.09	1.551
June 17	0715	1130	32.0	3.79	1.155

Minimum discharge, 50 ft^3/s (1.42 m^3/s) Oct. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	52	131	92	169	387	198	213	496	329	412	127	89
2	80	121	302	211	694	195	197	457	470	332	122	113
3	79	113	270	190	1630	195	328	416	341	298	116	143
4	68	108	220	677	966	186	540	391	302	288	111	134
5	61	104	200	867	684	198	403	359	274	259	109	140
6	60	116	185	687	555	204	360	332	274	240	113	136
7	61	114	172	576	463	314	339	313	304	213	107	126
8	60	103	181	514	408	363	315	296	284	195	104	105
9	58	99	181	422	378	275	313	279	249	182	284	93
10	58	93	160	337	347	244	309	263	226	173	406	86
11	56	89	158	288	309	250	344	246	210	166	299	81
12	56	85	199	241	312	303	351	230	194	182	259	77
13	56	84	211	223	321	311	337	222	281	197	220	75
14	56	83	205	209	305	309	319	211	447	181	189	74
15	58	81	247	202	304	282	296	200	387	168	170	223
16	58	97	278	188	319	265	276	190	361	157	149	287
17	58	101	262	173	327	285	267	181	816	147	136	238
18	60	92	240	164	306	287	386	174	582	138	128	229
19	79	86	242	176	306	273	355	168	476	132	117	228
20	77	111	274	191	331	261	316	169	416	149	110	229
21	73	128	258	178	338	263	310	167	373	160	104	239
22	67	115	226	153	326	273	286	167	332	147	98	247
23	70	105	236	147	304	255	269	181	330	133	94	265
24	103	99	269	178	295	243	256	195	302	126	98	258
25	98	95	250	163	254	234	247	179	274	118	136	161
26	118	92	236	144	214	252	342	164	252	114	131	133
27	136	89	235	133	208	243	498	152	234	120	118	227
28	335	87	243	129	202	215	623	147	225	178	107	296
29	267	85	188	126	---	202	596	411	258	196	99	263
30	182	86	117	119	---	193	533	417	531	154	93	252
31	151	---	97	214	---	199	---	392	---	136	89	---
TOTAL	2851	2992	6634	8389	11793	7770	10524	8165	10334	5791	4543	5247
MEAN	92.0	99.7	214	271	421	251	351	263	344	187	147	175
MAX	335	131	302	867	1630	363	623	496	816	412	406	296
MIN	52	81	92	119	202	186	197	147	194	114	89	74

CAL YR 1981 TOTAL 59186 MEAN 162 MAX 1150 MIN 51
WTR YR 1982 TOTAL 85033 MEAN 233 MAX 1630 MIN 52

01457400 MUSCONETCONG RIVER AT RIEGELSVILLE, NJ

LOCATION.--Lat 40°35'32", long 75°11'20", Warren County, Hydrologic Unit 02040105, at bridge on State Highway 13 in Riegelsville, 0.2 mi (0.3 km) north of Mount Joy, and 0.2 mi (0.3 km) upstream from mouth.

DRAINAGE AREA.--156 mi² (404 km²).

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1962, 1976 to current year.

COOPERATION.--Field data and samples for laboratory analyses supplied by New Jersey Department of Environmental Protection, Division of Water Resources. Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	STREP-TOCOCCI FECAL (MPN)	HARD-NESS (MG/L AS CACO3)
OCT 07...	1400	76	390	8.0	12.5	10.2	E2.6	220	220	160
FEB 10...	1300	225	291	7.5	2.0	13.8	E1.9	170	11	96
MAR 17...	1300	370	284	7.6	5.5	12.5	E1.5	330	>2400	110
JUN 08...	1300	230	283	7.7	15.0	9.8	E1.9	1300	350	110
JUL 12...	1300	120	321	8.1	21.5	9.4	<.3	790	130	130
AUG 19...	1330	82	339	8.2	17.0	8.8	1.6	700	180	130

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
OCT 07...	34	19	17	1.7	120	--	26	22	<.1
FEB 10...	22	10	23	1.3	63	--	19	31	<.1
MAR 17...	24	11	17	1.2	73	--	20	28	<.1
JUN 08...	24	11	13	1.3	81	<.5	17	25	.1
JUL 12...	29	14	13	.9	102	--	18	22	<.1
AUG 19...	29	15	12	1.3	97	--	22	24	<.1

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 07...	8.2	194	<.010	1.8	--	E.20	--	.18	2.9
FEB 10...	9.9	187	.070	1.3	.180	.59	1.9	.15	2.5
MAR 17...	6.9	167	.020	1.2	.220	E.72	--	.18	2.2
JUN 08...	8.9	172	.030	1.4	.090	.56	2.0	.25	3.5
JUL 12...	7.1	170	<.010	1.4	.260	.38	1.8	.21	2.0
AUG 19...	8.7	192	.030	1.6	.070	.84	2.4	.18	2.1

01457400 MUSCONETCONG RIVER AT RIEGELSVILLE, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)
JUN 08...	1300	<10	1	<10	20	<1	20	12

DATE	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	PHENOLS (UG/L)
JUN 08...	1200	7	70	.2	2	<1	20	1

01458100 HAKIHOKAKE CREEK AT MILFORD, NJ

LOCATION.--Lat 40°34'06", long 75°05'44", Hunterdon County, Hydrologic Unit 02040105, at bridge on Bridge Street at Milford, and 4,000 ft (1,220 m) upstream from mouth.

DRAINAGE AREA.--17.2 mi^2 (44.5 km^2).

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1959-62, 1976 to May 1982 (discontinued).

COOPERATION.--Field data and samples for laboratory analyses supplied by New Jersey Department of Environmental Protection, Division of Water Resources. Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	STREPTOCOCCI FECAL (MPN)	HARDNESS (MG/L AS CACO3)
FEB 01...	1000	148	7.0	.0	14.0	5.6	230	>2400	33
MAR 24...	1330	208	9.5	9.0	14.9	E1.4	<20	2	76
MAY 24...	1045	169	8.0	11.0	11.6	E1.8	3500	920	77

DATE	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
FEB 01...	8.9	2.7	9.5	3.0	19	--	13	15	.1
MAR 24...	19	6.9	9.2	1.3	48	--	25	12	<.1
MAY 24...	19	7.2	7.5	1.2	57	<.5	24	8.9	<.1

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
FEB 01...	5.0	89	.020	1.2	--	.88	2.1	.45	7.8
MAR 24...	11	123	.010	1.4	<.050	E.37	--	.06	3.3
MAY 24...	15	130	.010	1.2	<.050	E.10	--	.12	1.0

DATE	TIME	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)
MAY 24...	1045	20	1	<10	<10	<1	20	10

DATE	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	PHENOLS (UG/L)
MAY 24...	150	3	20	<.1	<1	<1	30	5

01458400 HARIHOKAKE CREEK NEAR FRENCHTOWN, NJ

LOCATION.--Lat 40°32'53", long 75°04'09", Hunterdon County, Hydrologic Unit 02040105, at bridge on Frenchtown-Milford Road, 1,600 ft (490 m) upstream from mouth, and 1.5 mi (2.4 km) north of Frenchtown.

DRAINAGE AREA.--9.75 mi² (25.26 km²).

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1959-62, 1976 to May 1982 (discontinued).

COOPERATION.--Field data and samples for laboratory analyses supplied by New Jersey Department of Environmental Protection, Division of Water Resources. Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	STREP-TOCOCCI FECAL (MPN)	HARD-NESS (MG/L AS CACO3)
FEB										
01...	1130	102	108	6.6	.0	14.3	5.8	50	>2400	28
MAR										
24...	1215	.30	153	9.2	8.0	14.7	E1.6	<2	<20	54
MAY										
24...	1230	.15	146	7.6	12.0	10.2	E1.4	790	>2400	47

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
FEB									
01...	7.8	2.0	4.6	3.1	18	--	12	9.1	.1
MAR									
24...	16	3.5	6.7	1.3	26	--	20	9.3	<.1
MAY									
24...	14	2.9	5.0	1.4	36	<.5	15	7.0	<.1

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
FEB									
01...	3.8	68	.030	1.5	--	1.20	2.7	.58	12
MAR									
24...	6.8	88	E.010	1.9	<.050	E.34	--	.06	2.7
MAY									
24...	8.9	83	.020	.90	.050	E.20	--	.18	1.6

DATE	TIME	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BERYL-LIUM, TOTAL RECOV-ERABLE (UG/L AS BE)	BORON, TOTAL RECOV-ERABLE (UG/L AS B)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)
MAY								
24...	1230	40	1	<10	<10	<1	10	6

DATE	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	SELE-NIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	PHENOLS (UG/L)
MAY								
24...	160	3	10	<.1	4	<1	40	2

01458500 DELAWARE RIVER AT FRENCHTOWN, NJ

LOCATION.--Lat 40°31'34", long 75°03'55", Hunterdon County, Hydrologic Unit 02040105, at bridge at Frenchtown, 1,000 ft (300 m) upstream from Nishisakawick Creek, and 3.4 mi (5.5 km) southeast of Milford.

DRAINAGE AREA.--6,420 mi² (16,628 km²).

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976 to May 1982 (discontinued).

COOPERATION.--Field data and samples for laboratory analyses supplied by New Jersey Department of Environmental Protection, Division of Water Resources. Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	STREP-TOCOCCI FECAL (MPN)	HARD-NESS (MG/L AS CACO3)
OCT 01...	1000	198	--	16.0	9.3	<1.3	80	33	70
FEB 08...	1000	135	7.1	.0	14.5	E1.6	130	33	37
MAR 25...	0945	107	7.6	4.5	12.5	3.2	490	110	32
MAY 25...	1030	195	7.7	15.0	8.7	2.7	80	110	72

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
OCT 01...	18	6.0	11	1.3	42	<.1	22	16	.1
FEB 08...	9.8	3.0	5.6	1.1	19	--	16	9.2	<.1
MAR 25...	8.6	2.5	5.6	.7	16	--	14	8.8	<.1
MAY 25...	18	6.5	10	1.3	45	<.5	23	12	.1

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 01...	2.2	107	.047	.88	--	.18	1.1	.34	--
FEB 08...	4.2	--	.070	.90	--	.65	1.6	.12	2.7
MAR 25...	3.6	59	.010	.60	.070	E.30	--	.15	3.2
MAY 25...	4.2	123	.050	1.0	.080	E.35	--	.25	2.2

DATE	TIME	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BERYL-LIUM, TOTAL RECOV-ERABLE (UG/L AS BE)	BORON, TOTAL RECOV-ERABLE (UG/L AS B)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)
OCT 01...	1000	20	2	<10	<10	1	20	9
MAY 25...	1030	10	1	<10	10	1	10	4

DATE	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	SELE-NIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	PHENOLS (UG/L)
OCT 01...	140	9	40	<.1	5	<1	50	1
MAY 25...	260	6	60	<.1	5	<1	180	7

01460500 DELAWARE AND RARITAN CANAL AT KINGSTON, NJ

LOCATION.--Lat 40°22'24", long 74°37'08", Middlesex County, Hydrologic Unit 02040105, on right bank at canal lock at Kingston, and 250 ft (76 m) upstream from new bridge on State Highway 27.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1947 to current year.

GAGE.--Two water-stage recorders and concrete control. Datum of gage is 40.00 ft (12.192 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Water-discharge records good. The canal diverts water from the Delaware River at Raven Rock and discharges into Raritan River at New Brunswick. Some water wasted to the Millstone River 500 ft (152 m) above station. During part or all of many days in February to June, practically all water in the canal was diverted from Carnegie Lake at aqueduct over Millstone River 2.0 mi (3.2 km) upstream of gage (see Delaware River Basin, diversion and withdrawals).

AVERAGE DISCHARGE.--35 years, 75.1 ft³/s (2.127 m³/s).

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 174 ft³/s (4.93 m³/s) Apr. 6, 1957; no flow many days in many years.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 76 ft³/s (2.15 m³/s) April 22, May 31, June 1,2; no flow part or all of many days October through February and May 25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	30	.02	.00	.00	.00	55	53	68	76	60	13	17
2	30	.08	.00	.00	.00	55	57	67	76	61	13	13
3	30	.08	.00	.00	11	55	60	66	74	57	13	18
4	31	.07	.00	33	.68	55	65	66	72	56	13	20
5	31	.09	.00	10	15	55	65	65	71	59	13	20
6	28	.17	.00	.00	31	56	64	63	70	58	13	20
7	31	.18	.00	.00	33	57	63	62	71	65	13	19
8	29	.18	.00	.00	36	59	58	62	66	69	13	20
9	29	.09	.00	.00	39	58	58	62	62	68	14	26
10	30	.00	.00	.00	42	57	58	62	55	61	43	28
11	29	.00	.00	.00	44	56	59	60	52	59	30	22
12	29	.00	.00	.00	44	56	58	60	55	47	14	16
13	29	.00	.00	.00	44	55	57	60	57	33	16	16
14	30	.00	.00	.00	45	55	57	37	67	33	16	16
15	30	.00	.00	.00	45	55	57	11	67	33	16	15
16	42	.00	.00	.00	48	55	57	14	63	33	17	15
17	55	.00	.00	.00	52	55	58	17	64	33	17	21
18	50	.00	.00	.00	54	55	60	17	64	32	17	28
19	40	.00	.00	.00	54	54	59	17	59	32	16	21
20	55	.00	.00	.00	55	53	58	16	52	17	16	22
21	60	.00	.00	.00	55	53	58	48	47	9.6	16	32
22	59	.00	.00	.00	55	53	59	62	59	21	16	34
23	52	.00	.00	.00	55	53	65	61	66	39	16	34
24	44	.00	.00	.00	54	53	67	62	72	43	16	37
25	45	.00	.00	.00	54	53	66	24	69	41	18	37
26	46	.00	.00	.00	53	54	66	16	68	40	24	34
27	47	.00	.00	.00	54	54	72	50	66	28	24	35
28	48	.00	.00	.00	55	53	76	56	64	38	18	48
29	49	.00	.00	.00	---	53	74	58	59	55	18	55
30	32	.00	.00	.00	---	53	70	62	58	29	18	48
31	.01	---	.00	.00	---	53	---	76	---	13	22	---
TOTAL	1170.01	.96	.00	43.00	1127.68	1696	1854	1527	1921	1322.6	542	787
MEAN	37.7	.032	.000	1.39	40.3	54.7	61.8	49.3	64.0	42.7	17.5	26.2
MAX	60	.18	.00	33	55	59	76	76	76	69	43	55
MIN	.01	.00	.00	.00	.00	53	53	11	47	9.6	13	13

CAL YR 1981 TOTAL 19826.97 MEAN 54.3 MAX 99 MIN .00
WTR YR 1982 TOTAL 11991.25 MEAN 32.9 MAX 76 MIN .00

01460880 LOCKATONG CREEK AT RAVEN ROCK, NJ

LOCATION.--Lat 40°24'58", long 75°01'05", Hunterdon County, Hydrologic Unit 02040105, at bridge, on Raven Rock-Rosemont Road, and 0.7 mi (1.1 km) upstream from mouth.

DRAINAGE AREA.--22.9 mi² (59.3 km²).

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1956, 1959-62, 1976 to June 1982 (discontinued).

COOPERATION.--Field data and samples for laboratory analyses supplied by New Jersey Department of Environmental Protection, Division of Water Resources. Analyses of fecal coliform and fecal streptococcci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	STREP-TOCOCCI FECAL (MPN)	HARD-NESS (MG/L AS CACO3)
FEB										
08...	1330	26	136	6.8	.0	14.0	E1.5	<20	23	37
MAR										
24...	1045	11	167	7.7	6.5	12.9	<1.3	<20	<2	51
JUN										
02...	1030	69	136	7.4	16.0	9.7	E1.8	2400	>2400	48

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
FEB									
08...	8.8	3.6	5.3	1.9	13	--	23	7.4	.1
MAR									
24...	12	5.2	8.7	1.9	17	--	29	9.9	<.1
JUN									
02...	11	4.9	6.8	2.4	21	<.5	27	8.0	.1

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
FEB									
08...	10	63	.040	1.9	--	.33	2.2	.09	2.2
MAR									
24...	7.8	93	E.020	1.8	<.050	E.54	--	.06	3.6
JUN									
02...	9.6	123	.030	1.4	E.260	1.20	2.6	.28	9.4

DATE	TIME	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BERYL-LIUM, TOTAL RECOV-ERABLE (UG/L AS BE)	BORON, TOTAL RECOV-ERABLE (UG/L AS B)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)
JUN								
02...	1030	30	1	<10	40	<1	<10	2

DATE	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	SELE-NIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	PHENOLS (UG/L)
JUN								
02...	1200	3	40	<.1	6	<1	30	2

01461000 DELAWARE RIVER AT LUMBERVILLE, PA

LOCATION.--Lat 40°24'27", long 75°02'16", Bucks County, Hydrologic Unit 02040105, at pedestrian bridge at Lumberville, 1.4 mi (2.3 km) upstream of Lockatong Creek.

DRAINAGE AREA.--6,598 mi^2 (17,089 km^2).

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976 to current year.

COOPERATION.--Field data and samples for laboratory analyses supplied by New Jersey Department of Environmental Protection, Division of Water Resources. Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	STREPTOCOCCI FECAL (MPN)	HARDNESS (MG/L AS CACO3)
OCT 01...	1130	197	8.0	16.0	9.4	<1.1	<20	22	70
FEB 08...	1200	134	7.0	.0	14.6	E1.2	20	33	41
MAR 25...	1215	109	7.5	5.0	12.8	E1.8	50	6	32
MAY 25...	1245	204	7.9	16.0	9.6	E2.4	490	540	69
JUL 26...	1330	195	8.7	25.0	8.8	E2.1	<20	13	77
AUG 26...	1230	242	8.0	20.0	8.4	E2.0	1300	49	89

DATE	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
OCT 01...	18	6.1	9.7	1.3	41	<.1	23	16	<.1
FEB 08...	11	3.3	7.1	1.0	21	--	16	11	<.1
MAR 25...	8.6	2.5	5.8	.8	16	--	14	8.8	<.1
MAY 25...	17	6.4	9.6	1.3	42	--	23	12	<.1
JUL 26...	20	6.6	8.5	1.1	50	--	21	13	.1
AUG 26...	23	7.7	10	1.5	56	--	28	14	<.1

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 01...	1.8	117	.042	.88	--	.11	.99	.28	2.8
FEB 08...	4.8	108	.090	.90	--	.33	1.2	.12	1.7
MAR 25...	3.6	64	.010	.60	.070	E.60	--	.15	3.0
MAY 25...	4.2	124	E.050	1.1	.080	E.40	--	.25	2.7
JUL 26...	4.0	136	.050	1.0	.090	.56	1.6	.31	4.4
AUG 26...	3.7	142	.090	1.4	.120	.94	2.3	.44	5.1

01461000 DELAWARE RIVER AT LUMBERVILLE, PA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)
OCT								
01...	1130	20	2	<10	<10	1	20	10

DATE	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	PHENOLS (UG/L)
OCT								
01...	160	10	30	<.1	6	<1	50	1

01461300 WICKECHEOKE CREEK AT STOCKTON, NJ

LOCATION.--Lat 40°24'41", long 74°59'13", Hunterdon County, Hydrologic Unit 02040105, at bridge on State Route 29 in Stockton, 900 ft (270 m) upstream from mouth.

DRAINAGE AREA.--26.6 mi² (68.9 km²).

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1959-63, 1976 to current year.

COOPERATION.--Field data and samples for laboratory analyses supplied by New Jersey Department of Environmental Protection, Division of Water Resources. Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	STREP-TOCOCCI FECAL (MPN)	HARD-NESS (MG/L AS CACO3)
FEB										
25...	1030	--	590	7.4	.0	14.3	E1.4	20	<2	46
MAR										
25...	1345	40	840	9.6	10.5	13.4	2.3	<20	<2	53
JUN										
02...	1200	907	345	7.8	17.5	10.1	E2.0	790	>2400	39
JUL										
26...	1130	12	229	8.7	20.5	10.0	E1.9	60	1600	58
AUG										
26...	1100	13	209	7.8	15.0	10.3	<.1	170	540	51

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
FEB									
25...	14	4.6	71	1.9	22	--	42	86	<.1
MAR									
25...	12	5.6	130	1.8	32	--	55	150	<.1
JUN									
02...	9.2	3.9	51	1.7	27	<.5	34	68	.1
JUL									
26...	14	5.7	19	1.6	47	--	24	16	.1
AUG									
26...	12	5.1	16	1.5	44	--	20	15	<.1

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
FEB									
25...	11	248	<.010	2.1	E.080	.38	2.5	.12	1.1
MAR									
25...	8.1	383	.010	1.4	<.050	E.40	--	.09	3.0
JUN									
02...	10	211	.010	.70	E.060	.60	1.3	.15	5.1
JUL									
26...	6.3	146	.020	2.1	.090	.13	2.2	.06	2.4
AUG									
26...	11	125	.010	1.8	<.050	.47	2.3	.15	3.2

DATE	TIME	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BERYL-LIUM, TOTAL RECOV-ERABLE (UG/L AS BE)	BORON, TOTAL RECOV-ERABLE (UG/L AS B)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)
JUN								
02...	1200	10	1	<10	330	<1	10	3

DATE	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	NICKEL, TOTAL RECOV-FRABLE (UG/L AS NI)	SELE-NIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	PHENOLS (UG/L)
JUN								
02...	760	1	30	<.1	1	<1	30	1

01461900 ALEXAUKEN CREEK NEAR LAMBERTVILLE, NJ

LOCATION.--Lat 40°22'51", long 74°56'54", Hunterdon County, Hydrologic Unit 02040105, at bridge on State Route 29, 0.4 mi (0.6 km) upstream from mouth, and 1.1 mi (1.8 km) north of Lambertville.

DRAINAGE AREA.--14.8 mi² (38.3 km²).

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1959-63, 1976 to May 1982 (discontinued).

COOPERATION.--Field data and samples for laboratory analyses supplied by New Jersey Department of Environmental Protection, Division of Water Resources. Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	STREP-TOCOCCI FECAL (MPN)
FEB									
01...	1300	--	160	7.8	.0	14.1	4.5	310	>2400
MAR									
31...	0930	12	292	8.4	7.0	13.5	E2.2	<20	33
MAY									
24...	1400	7.1	249	7.9	12.5	10.9	E1.7	790	540

DATE	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
FEB									
01...	45	11	4.3	8.1	2.5	20	18	13	.1
MAR									
31...	81	20	7.5	8.9	1.6	39	34	13	<.1
MAY									
24...	85	21	7.8	9.5	1.7	53	37	12	<.1

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
FEB									
01...	8.3	97	.030	1.7	--	1.00	2.7	.55	5.4
MAR									
31...	8.9	157	.020	1.6	.070	E.40	--	.06	6.3
MAY									
24...	12	163	.020	1.4	<.050	.15	1.6	.09	1.5

01462000 DELAWARE RIVER AT LAMBERTVILLE, NJ

LOCATION.--Lat 40°21'53", long 74°56'57", Hunterdon County, Hydrologic Unit 02040105, at U.S. Route 202 bridge connecting Lambertville, NJ, and New Hope, PA, and 600 ft (183 m) upstream of Swan Creek.

DRAINAGE AREA.--6,680 mi^2 (17,301 km^2).

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976 to June 1982 (discontinued).

COOPERATION.--Field data and samples for laboratory analyses supplied by New Jersey Department of Environmental Protection, Division of Water Resources. Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	STREPTOCOCCI FECAL (MPN)	HARDNESS (MG/L AS CACO3)
OCT 01...	1330	232	8.2	16.0	9.3	E1.6	230	240	88
FEB 25...	1200	221	7.7	.0	12.1	E1.7	70	6	58
APR 01...	0930	124	7.6	7.0	11.7	E2.7	20	79	37
JUN 02...	1345	182	7.6	19.0	8.7	E2.8	5400	>2400	62

DATE	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
OCT 01...	22	8.1	11	1.5	53	<.1	25	17	.1
FEB 25...	15	4.9	10	1.2	31	--	20	15	<.1
APR 01...	10	3.0	6.0	.7	18	--	17	8.5	<.1
JUN 02...	16	5.4	7.5	1.2	39	<.5	22	9.9	<.1

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHATE, TOTAL (MC/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 01...	2.1	129	.025	1.0	--	.15	1.1	.28	2.5
FEB 25...	4.9	107	.020	1.1	E.180	.45	1.5	.25	1.5
APR 01...	3.4	95	.010	.70	.120	E.75	--	.15	2.2
JUN 02...	5.3	107	.050	1.3	E.110	.70	2.0	.21	5.8

DATE	TIME	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)
OCT 01...	1330	30	2	<10	<10	1	20	10
JUN 02...	1345	<10	1	<10	20	<1	<10	6

DATE	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	PHENOLS (UG/L)
OCT 01...	230	3	30	<.1	7	<1	40	6
JUN 02...	1600	14	130	<.1	2	<1	70	<1

01462500 DELAWARE RIVER AT WASHINGTON CROSSING, NJ

LOCATION.--Lat 40°17'20", long 74°52'08", Mercer County, Hydrologic Unit 02040105, at bridge at Washington Crossing, 1.4 mi (2.3 km) upstream of Jacobs Creek.

DRAINAGE AREA.--6,735 mi² (17,444 km²).

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976 to current year.

COOPERATION.--Field data and samples for laboratory analyses supplied by New Jersey Department of Environmental Protection, Division of Water Resources. Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	STREPTOCOCCI FECAL (MPN)	HARDNESS (MG/L AS CACO3)
MAR 10...	1300	217	7.8	2.0	13.8	E1.7	50	17	61
APR 01...	1130	123	7.7	7.5	11.5	E2.4	<20	14	38
MAY 25...	1400	207	7.8	16.5	9.8	E2.4	130	920	71
JUL 26...	1000	174	8.2	24.5	8.6	E2.1	<20	4	78
AUG 26...	0930	230	7.8	19.0	8.0	<.8	340	26	90

DATE	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
MAR 10...	16	5.2	11	1.5	36	--	20	18	<.1
APR 01...	10	3.1	5.8	.7	20	--	18	9.2	<.1
MAY 25...	18	6.4	9.3	1.3	45	<.5	23	13	<.1
JUL 26...	20	6.7	8.9	1.0	50	--	21	13	.1
AUG 26...	23	7.8	9.0	1.2	58	--	25	13	<.1

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
MAR 10...	4.8	123	.020	1.2	.230	E.78	--	.21	2.5
APR 01...	3.5	66	.010	.70	<.050	E.40	--	.12	1.8
MAY 25...	4.3	135	.060	1.1	.080	E.35	--	.25	2.6
JUL 26...	3.9	140	.050	.90	.070	.47	1.4	.28	2.8
AUG 26...	3.0	137	.080	1.3	.090	.69	2.0	.28	4.6

DATE	TIME	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)
MAY 25...	1400	40	1	<10	10	1	10	4

DATE	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	PHENOLS (UG/L)
MAY 25...	400	8	70	<.1	6	<1	60	2

01463500 DELAWARE RIVER AT TRENTON, NJ

(National stream quality accounting network, Pesticide program, and Radiochemical program station)

LOCATION.--Lat 40°13'18", long 74°46'42", Mercer County, Hydrologic Unit 02040105, on left bank 450 ft (137 m) upstream from Calhoun Street Bridge at Trenton, 0.5 mi (0.8 km) upstream from Assunpink Creek, and at mile 134.5 (216 km).

DRAINAGE AREA.--6,780 mi^2 (17,560 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--February 1913 to current year. October 1912 to February 1913 monthly discharge only, published in WSP 1302. Gage-height records collected in this vicinity since 1904 are contained in reports of the National Weather Service.

REVISED RECORDS.--WSP 951: Drainage area. WSP 1302: 1913-20. WSP 1382: 1924, 1928.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929. Prior to Sept. 30, 1965, at datum 7.77 ft (2.368 m) higher. Feb. 24, 1913, to Oct. 2, 1928, nonrecording gage on downstream side of highway bridge at site 500 ft (152 m) downstream.

REMARKS.--Water-discharge records good. Diurnal fluctuations at medium and low flow caused by powerplants on tributary streams. Flow regulated by Lakes Wallenpaupack and Hopatcong, and by Pepacton, Cannonsville, Swinging Bridge, Toronto, Cliff Lake, Neversink, and Wild Creek Reservoirs (see Delaware River Basin, reservoirs in) and smaller reservoirs. Diversion from Pepacton, Cannonsville, and Neversink Reservoirs and to Delaware and Raritan Canal (see Delaware River Basin, diversions). Water diverted just above station by borough of Morrisville, PA, and city of Trenton for municipal supply (see Delaware River Basin, diversions).

AVERAGE DISCHARGE.--70 years, 11,671 ft^3/s (330.5 m^3/s), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 329,000 ft^3/s (9,320 m^3/s) Aug. 20, 1955, elevation, 28.60 ft (8.717 m) from high-water mark in gage house, from rating curve extended above 230,000 ft^3/s (6,510 m^3/s); minimum, 1,180 ft^3/s (33.4 m^3/s) Oct. 31, 1963, elevation, 7.26 ft (2.213 m). Flow in Delaware and Raritan Canal not included.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Oct. 11, 1903, reached an elevation of about 28.5 ft (8.69 m) National Geodetic Vertical Datum of 1929, discharge estimated, 295,000 ft^3/s (8,350 m^3/s). Maximum elevation since 1903, 30.6 ft (9.33 m) National Geodetic Vertical Datum of 1929, Mar. 8, 1904, from floodmark (ice jam).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 50,000 ft^3/s (1,420 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Elevation (ft)	Elevation (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Elevation (ft)	Elevation (m)
Jan. 13	1845	53200	1510	14.26	4.346	Apr. 5	1015	*54900	1550	14.39	4.386
Feb. 3	Unknown	54000	1530	a*17.44	5.316						

a Ice jam.

Minimum discharge, 2,760 ft^3/s (78.2 m^3/s) Oct. 22, gage height, 7.94 ft (2.420 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3590	9050	5510	6970	7050	6740	19400	18100	12000	16900	4430	4470
2	3690	7990	7940	9890	9100	6470	26400	16100	13500	15500	3990	4460
3	3790	7220	9330	8700	25000	6810	28900	14600	17800	13100	4120	4680
4	3880	7070	8670	20900	34300	6770	43000	13800	17900	13400	3970	5550
5	3950	6530	9140	30800	28100	6430	51000	13000	16800	11200	3860	4980
6	3550	6400	8110	29500	30400	6580	40000	12100	15300	9750	3820	4800
7	3620	7590	7170	25300	22500	7900	33400	11300	15000	8690	3720	4600
8	3580	8290	6760	20100	18200	12000	28500	10800	15000	8060	3770	4490
9	3320	7250	6670	15800	16200	10200	24700	10200	15700	7670	8410	4640
10	3200	6890	6690	13000	14800	8880	21800	8970	14100	7100	13300	4510
11	3600	5930	6450	7550	13100	8100	21800	8310	12300	6580	9750	4500
12	3580	5420	5680	7250	11100	8600	21700	8230	11300	5990	7880	4520
13	3460	5530	5460	9150	10000	12000	20400	7730	11800	7140	6640	4490
14	3280	5380	5330	8100	9210	15100	19500	7210	18600	6790	5880	4460
15	3310	5930	6040	8500	8780	17100	19100	6900	18700	6680	5200	4150
16	3320	6010	7940	7600	8860	19500	18000	6530	16800	6290	4860	4220
17	3090	6440	6540	7600	10500	20000	16600	6080	21000	5740	4630	4020
18	3050	5500	5880	6400	11100	18900	19100	5720	17300	5590	4420	3910
19	3260	5420	5700	6700	10300	18200	32000	5350	15300	5260	4300	3870
20	3280	5440	4900	7200	10300	21000	31400	5360	13800	4970	4300	4350
21	3070	5870	4670	6700	10200	22400	27500	5890	12400	5750	4240	4040
22	2870	6220	4130	6050	9890	24200	23600	6050	11000	6450	4150	4010
23	3140	6530	4520	5900	9430	25300	19800	6040	10100	5870	3990	4230
24	3660	6330	6610	6150	9960	24900	17200	6030	10400	5310	4010	4310
25	4230	5870	7180	6100	9660	24200	15400	6530	9600	4820	4260	4260
26	4200	5600	8210	5650	8330	25600	15300	7270	8630	4510	7570	3990
27	4120	5410	8030	5200	7550	33800	22000	7320	8310	4260	7370	4100
28	7300	5080	7570	5350	7340	33000	28000	6420	7730	4690	5920	4860
29	10400	5310	7200	5250	---	25000	24500	11000	8300	5900	4950	5050
30	15700	5530	7030	5350	---	20600	20700	15200	16300	5300	4770	4390
31	11400	---	6480	5250	---	18300	---	14100	---	4870	4610	---
TOTAL	139490	189030	207540	319960	381260	514580	750700	288240	412770	230130	167090	132910
MEAN	4500	6301	6695	10320	13620	16600	25020	9298	13760	7424	5390	4430
MAX	15700	9050	9330	30800	34300	33800	51000	18100	21000	16900	13300	5550
MIN	2870	5080	4130	5200	7050	6430	15300	5350	7730	4260	3720	3870

CAL YR 1981 TOTAL 2896550 MEAN 7936 MAX 60600 MIN 1900
WTR YR 1982 TOTAL 3733700 MEAN 10230 MAX 51000 MIN 2870

01463500 DELAWARE RIVER AT TRENTON, NJ--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1945 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: June 1968 to September 1978, May 1979 to current year.
pH: June 1968 to September 1978, May to September 1978, February 1980 to current year.
WATER TEMPERATURES: October 1944 to September 1978, May 1979 to current year.
DISSOLVED OXYGEN: October 1962 to September 1978, May 1979 to current year.
SUSPENDED-SEDIMENT DISCHARGE: Water years 1949 to 1981.

INSTRUMENTATION.--Temperature recorder since October 1944, water-quality monitor since October 1962.

REMARKS.--Missing continuous water-quality records are the result of malfunction of sensor or sampling mechanism. Unpublished records of suspended sediment discharge for the period October 1, 1981 to March 31, 1982 are available in files of the district office.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 400 micromhos Jan. 24, 1959; minimum, 50 micromhos Mar. 19, 1945.
pH: Maximum, 10.2 July 5, 6, 1971, June 14, 15, 1974; minimum, 5.3 June 22, 1972.
WATER TEMPERATURES: Maximum, 34.0°C June 18, 1957; minimum 0.0°C on many days during winter months.
DISSOLVED OXYGEN: Maximum, 18.4 mg/L January 10, 1980; minimum, 4.0 mg/L Nov. 9, 1972.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 244 micromhos Aug. 21; minimum, 88 micromhos Mar. 28 and Apr. 5
pH: Maximum, 9.5 July 19, 27; minimum, 7.2 Oct. 22 and Aug. 9, 10.
WATER TEMPERATURES: Maximum, 32.0°C July 19; minimum 0.0°C on many days during winter months.
DISSOLVED OXYGEN: Maximum, 15.4 mg/L Dec. 21; minimum, 5.0 mg/L Aug. 10.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
NOV 17...	1130	6600	150	7.6	8.0	2.5	11.6	--	K27	100
JAN 28...	1015	23000	181	7.5	.0	1.1	13.6	3.3	K4	52
MAR 15...	1115	16900	154	7.5	4.5	6.3	12.5	1.4	K9	340
MAY 19...	1200	5350	187	8.5	21.5	2.6	9.4	3.4	K9	K590
JUL 08...	0910	7950	171	8.2	23.5	2.2	8.5	--	27	K1300
SEP 09...	1230	4660	210	7.6	21.0	<1.0	10.1	1.2	65	84

DATE	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)
NOV 17...	54	14	4.5	7.9	1.2	33	22	9.8	<.1	2.3
JAN 28...	63	16	5.6	10	1.3	38	23	13	.1	5.6
MAR 15...	48	13	3.8	8.5	1.0	27	21	14	<.1	4.1
MAY 19...	68	17	6.1	8.2	1.1	47	23	11	<.1	1.7
JUL 08...	63	16	5.7	7.5	.8	42	19	9.6	<.1	4.0
SEP 09...	80	20	7.2	9.3	1.4	52	22	12	.1	2.5

DATE	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)
NOV 17...	88	6	107	100	.83	.050	.38	.090	.060	.050
JAN 28...	112	--	--	--	1.3	.250	.70	.080	.070	.060
MAR 15...	98	23	1050	92	.94	.040	.49	.090	.040	.030
MAY 19...	115	7	101	100	.90	<.010	.76	.100	.050	.030
JUL 08...	104	5	107	100	--	--	--	--	--	--
SEP 09...	113	5	63	70	1.1	.040	.30	.090	.080	.060

01463500 DELAWARE RIVER AT TRENTON, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	ARSENIC TOTAL (UG/L AS AS)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA)	BARIUM, DIS-SOLVED (UG/L AS BA)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, TOTAL RECOV-ERABLE (UG/L AS CO)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)
NOV 17...	1130	1	1	<100	26	1	<1	20	10	1	1	12
MAR 15...	1115	1	<1	100	35	4	<1	<10	<10	<1	<1	12
APR 20...	0856	--	--	--	--	--	--	--	--	--	--	--
MAY 19...	1200	1	1	<100	41	1	1	10	<10	2	2	7
SEP 09...	1230	2	1	100	30	<1	<1	10	<10	1	<1	5

DATE	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	MERCURY DIS-SOLVED (UG/L AS HG)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, TOTAL (UG/L AS SE)
NOV 17...	8	240	15	5	<1	30	13	<.1	<.1	4	2	<1
MAR 15...	3	520	20	10	2	70	22	.2	.1	5	1	<1
APR 20...	--	--	--	--	--	--	--	--	--	--	--	--
MAY 19...	5	190	15	4	2	70	2	.2	.2	9	8	<1
SEP 09...	8	110	9	7	<1	20	3	<.1	<.1	1	1	<1

DATE	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG)	SILVER, DIS-SOLVED (UG/L AS AG)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, DIS-SOLVED (UG/L AS ZN)	GROSS ALPHA, DIS-SOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	GROSS BETA, DIS-SOLVED (PCI/L AS SR/YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90)	RADIUM 226, DIS-SOLVED, RADON METHOD (PCI/L)	URANIUM DIS-SOLVED, EXTRAC-TION (UG/L)	PCB, TOTAL (UG/L)
NOV 17...	<1	<1	<1	120	17	<1.8	<.5	1.8	<.4	.07	.05	--
MAR 15...	<1	<1	<1	50	31	--	--	--	--	--	--	--
APR 20...	--	--	--	--	--	--	--	--	--	--	--	<.10
MAY 19...	<1	<1	<1	60	<3	<2.3	<.4	1.7	<.8	.04	.03	<.10
SEP 09...	<1	<1	<1	20	4	--	--	--	--	--	--	--

DATE	PCB, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	NAPH-THA-LENES, POLY-CHLOR. TOTAL (UG/L)	PCN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	ALDRIN, TOTAL (UG/L)	ALDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	CHLOR-DANE, TOTAL (UG/L)	CHLOR-DANE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDD, TOTAL (UG/L)	DDD, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDE, TOTAL (UG/L)	DDE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)
NOV 17...	2	--	<1.0	--	<.1	--	2.8	--	3.4	--	1.3
MAR 15...	--	--	--	--	--	--	--	--	--	--	--
APR 20...	--	<.10	--	<.01	--	<.10	--	<.01	--	<.01	--
MAY 19...	45	<.10	<1.0	<.01	<.1	<.10	7.0	<.01	2.9	<.01	2.4
SEP 09...	--	--	--	--	--	--	--	--	--	--	--

01463500 DELAWARE RIVER AT TRENTON, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	DDT, TOTAL (UG/L)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIAZINON, TOTAL (UG/L)	DIELDRIN TOTAL (UG/L)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL (UG/L)	ENDOSULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL (UG/L)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ETHION, TOTAL (UG/L)	HEPTACHLOR, TOTAL (UG/L)
NOV 17...	--	32	--	--	<.1	--	<.1	--	<.1	--	--
MAR 15...	--	--	--	--	--	--	--	--	--	--	--
APR 20...	<.01	--	<.01	<.01	--	<.01	--	<.01	--	<.01	<.01
MAY 19...	<.01	10	<.01	<.01	.3	<.01	<.1	<.01	<.1	<.01	<.01
SEP 09...	--	--	--	--	--	--	--	--	--	--	--

DATE	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR EPOXIDE TOTAL (UG/L)	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL (UG/L)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	MALATHION, TOTAL (UG/L)	METHOXYCHLOR, TOTAL (UG/L)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARATHION, TOTAL (UG/L)	METHYL TRITHION, TOTAL (UG/L)	MIREX, TOTAL (UG/L)
NOV 17...	<.1	--	<.1	--	<.1	--	--	<.1	--	--	--
MAR 15...	--	--	--	--	--	--	--	--	--	--	--
APR 20...	--	<.01	--	<.01	--	<.01	<.01	--	<.01	<.01	<.01
MAY 19...	<.1	<.01	<.1	<.01	<.1	<.01	<.01	<.1	<.01	<.01	<.01
SEP 09...	--	--	--	--	--	--	--	--	--	--	--

DATE	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	PARATHION, TOTAL (UG/L)	PERTHANE TOTAL (UG/L)	PERTHANE IN BOTTOM MATERIL (UG/KG)	TOXAPHENE, TOTAL (UG/L)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)	TOTAL TRITHION (UG/L)	2,4-D, TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)
NOV 17...	<.1	--	--	<.10	--	<1.0	--	--	--	--	--
MAR 15...	--	--	--	--	--	--	--	--	--	--	--
APR 20...	--	<.01	<.10	--	<1	--	<.01	<.01	<.01	<.01	<.01
MAY 19...	<.1	<.01	<.10	<1.00	<1	<10	<.01	.05	<.01	<.01	<.01
SEP 09...	--	--	--	--	--	--	--	--	--	--	--

01463500 DELAWARE RIVER AT TRENTON, NJ--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	217	209	213	132	123	129	---	---	---	183	170	176
2	209	197	203	138	132	134	---	---	---	181	164	172
3	207	201	203	142	137	139	---	---	---	184	180	183
4	213	204	208	150	142	145	---	---	---	183	104	140
5	205	195	199	149	143	145	---	---	---	170	125	159
6	198	191	195	146	144	145	---	---	---	157	134	148
7	202	197	200	167	147	155	---	---	---	132	126	128
8	200	197	198	175	155	166	---	---	---	134	129	132
9	202	196	199	154	141	146	---	---	---	144	135	139
10	203	200	202	142	140	141	---	---	---	161	144	153
11	208	204	206	147	142	143	---	---	---	168	162	165
12	208	199	203	149	147	148	---	---	---	179	168	173
13	203	198	200	155	150	153	---	---	---	193	181	188
14	204	201	203	159	153	157	---	---	---	194	183	190
15	205	200	202	170	160	166	---	---	---	184	180	181
16	202	197	200	173	157	167	---	---	---	184	181	183
17	204	200	202	158	155	156	---	---	---	182	178	180
18	202	184	198	165	158	163	223	218	---	187	181	184
19	201	194	199	168	163	165	220	213	218	188	184	187
20	200	196	198	174	169	173	212	208	210	192	184	187
21	207	200	204	174	171	172	221	210	213	194	188	191
22	213	206	209	176	172	174	213	211	212	187	182	183
23	214	207	211	177	169	174	218	211	215	197	182	187
24	215	211	213	168	158	162	220	200	211	203	194	199
25	218	209	212	160	157	158	216	203	212	202	195	197
26	218	215	217	---	---	---	211	184	197	208	202	206
27	215	188	208	---	---	---	183	168	174	203	192	197
28	202	189	197	---	---	---	174	167	170	197	191	195
29	201	194	198	---	---	---	183	174	177	197	195	196
30	193	123	154	---	---	---	184	178	181	201	196	199
31	123	119	120	---	---	---	177	170	174	204	202	203
MONTH	218	119	199	177	123	155	223	167	197	208	104	177

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	219	187	198	196	189	192	134	113	120	133	130	131
2	210	183	193	193	189	191	120	99	111	139	135	137
3	215	134	172	196	192	194	106	93	96	142	139	140
4	161	140	155	194	188	191	121	103	112	145	142	143
5	152	146	150	193	189	191	112	88	95	146	144	145
6	147	126	131	202	192	196	99	89	93	150	145	148
7	130	128	129	208	190	204	105	99	102	154	150	152
8	132	129	131	199	172	187	114	106	110	156	153	154
9	142	133	138	207	194	201	122	114	118	159	156	157
10	148	142	145	211	193	200	130	121	126	163	158	159
11	155	150	153	222	203	208	141	130	135	169	163	165
12	157	152	154	223	205	211	143	133	136	174	169	171
13	166	156	161	209	200	206	136	132	134	174	170	172
14	170	163	166	199	169	183	138	132	135	178	170	173
15	172	168	170	169	151	160	137	131	134	184	179	181
16	174	168	171	152	139	145	132	130	131	188	185	186
17	184	174	177	139	134	137	135	130	132	191	188	189
18	185	173	181	142	137	140	142	134	137	191	189	190
19	172	167	170	142	139	141	138	96	121	198	191	195
20	176	169	172	142	129	136	102	92	96	204	198	201
21	190	176	183	129	120	123	104	100	102	212	204	208
22	195	184	188	123	116	119	107	101	104	213	206	209
23	200	193	196	116	111	113	115	107	110	209	201	206
24	203	196	199	111	107	109	126	115	118	201	197	199
25	200	189	196	110	106	108	125	121	123	209	199	201
26	188	184	186	106	102	104	131	124	127	210	193	198
27	194	187	189	104	92	100	141	127	136	---	---	---
28	197	193	194	92	88	89	137	120	126	---	---	---
29	---	---	---	97	90	93	128	126	127	---	---	---
30	---	---	---	104	97	101	130	128	129	---	---	---
31	---	---	---	113	104	108	---	---	---	---	---	---
MONTH	219	126	170	223	88	154	143	88	119	213	130	173

01463500 DELAWARE RIVER AT TRENTON, NJ--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	---	158	142	148	218	217	218	218	210	214
2	---	---	---	152	147	150	224	217	219	221	210	218
3	---	---	---	153	147	150	225	219	222	225	204	219
4	---	---	---	162	149	155	227	224	225	231	227	229
5	---	---	---	166	161	163	227	224	225	231	221	226
6	---	---	---	169	165	166	229	224	226	221	219	220
7	---	---	---	176	169	172	231	229	230	219	215	217
8	---	---	---	182	176	178	235	231	234	216	211	214
9	---	---	---	186	182	183	237	221	231	218	214	215
10	137	133	135	189	186	187	233	177	191	226	219	222
11	142	138	139	194	190	193	199	185	193	226	219	221
12	150	143	146	198	195	196	211	194	204	221	214	217
13	151	148	150	212	197	204	222	212	217	220	214	215
14	155	146	149	211	203	207	229	223	226	213	210	211
15	151	143	148	205	200	203	233	228	231	211	206	209
16	143	140	141	203	199	201	232	227	229	211	206	208
17	150	133	144	203	200	202	234	230	232	219	206	211
18	164	148	156	208	203	206	236	233	234	232	220	224
19	165	162	163	210	206	208	241	234	236	233	230	232
20	165	161	163	212	207	209	241	239	240	235	226	232
21	162	160	161	220	211	216	244	238	241	242	232	238
22	166	160	162	218	207	214	239	234	236	239	216	225
23	171	165	169	210	199	206	237	232	235	218	205	213
24	179	171	176	201	199	200	235	230	233	224	216	219
25	180	176	178	203	199	201	236	220	228	230	223	226
26	181	176	178	206	200	202	241	230	233	230	227	228
27	188	181	183	213	206	208	241	199	222	228	210	219
28	190	184	187	216	208	213	199	188	191	221	215	218
29	185	173	180	219	209	214	201	189	195	225	218	223
30	187	161	180	227	220	224	211	200	206	220	213	215
31	---	---	---	220	217	218	215	210	212	---	---	---
MONTH	190	133	161	227	142	193	244	177	222	242	204	220
YEAR	244	88	179									

PH (STANDARD UNITS), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	9.1	8.1	8.6	7.7	7.6	7.6	---	---	---	8.1	7.7	7.8
2	9.0	8.0	8.5	7.9	7.6	7.6	---	---	---	7.8	7.6	7.7
3	9.2	8.0	8.6	7.8	7.6	7.7	---	---	---	7.8	7.7	7.8
4	9.2	8.1	8.7	7.9	7.6	7.7	---	---	---	7.7	7.3	7.5
5	9.3	8.1	8.7	7.9	7.7	7.8	---	---	---	7.7	7.4	7.6
6	9.1	8.1	8.6	7.9	7.6	7.8	---	---	---	7.6	7.5	7.6
7	9.2	8.0	8.6	7.9	7.7	7.8	---	---	---	7.5	7.5	7.5
8	9.3	8.1	8.7	8.0	7.7	7.8	---	---	---	7.6	7.5	7.6
9	9.3	8.2	8.8	8.1	7.7	7.8	---	---	---	7.6	7.6	7.6
10	9.4	8.2	8.9	7.9	7.7	7.8	---	---	---	7.9	7.6	7.7
11	9.4	8.3	9.0	8.1	7.6	7.8	---	---	---	7.8	7.7	7.7
12	9.4	8.4	9.0	8.3	7.7	7.9	---	---	---	7.8	7.7	7.7
13	9.4	8.4	9.0	8.4	7.7	8.0	---	---	---	7.8	7.5	7.8
14	9.4	8.5	9.0	8.4	7.7	8.0	---	---	---	7.8	7.7	7.8
15	9.3	8.5	9.0	8.2	7.7	7.9	---	---	---	7.7	7.7	7.7
16	9.2	8.4	8.9	8.2	7.7	7.9	---	---	---	7.7	7.7	7.7
17	9.2	8.3	8.8	8.2	7.7	7.8	---	---	---	7.7	7.7	7.7
18	9.0	8.1	8.6	8.1	7.7	7.8	8.1	7.8	---	7.7	7.7	7.7
19	8.9	7.8	8.3	8.7	7.7	8.1	8.3	7.8	8.0	7.7	7.7	7.7
20	9.0	7.9	8.5	8.2	7.8	7.9	8.3	7.8	8.0	7.8	7.7	7.7
21	9.1	8.0	8.5	8.5	7.7	8.0	8.4	7.8	8.1	7.8	7.7	7.8
22	9.0	7.2	8.4	8.5	7.9	8.1	8.1	7.8	7.9	7.8	7.7	7.7
23	7.9	7.5	7.7	8.5	7.9	8.1	8.3	7.7	7.9	7.8	7.7	7.8
24	8.7	7.6	8.1	8.6	7.9	8.1	7.9	7.7	7.8	7.8	7.8	7.8
25	8.4	7.7	7.9	8.7	7.9	8.2	8.0	7.7	7.8	7.8	7.8	7.8
26	8.1	7.6	7.8	---	---	---	8.0	7.7	7.8	7.9	7.8	7.8
27	8.2	7.6	7.8	---	---	---	7.8	7.6	7.7	7.9	7.8	7.8
28	7.7	7.6	7.6	---	---	---	8.1	7.6	7.8	7.9	7.8	7.8
29	7.6	7.5	---	---	---	---	8.1	7.7	7.8	7.9	7.7	7.8
30	7.6	7.6	---	---	---	---	8.2	7.7	7.9	7.8	7.7	7.8
31	7.6	7.6	7.6	---	---	---	8.2	7.7	7.9	7.8	7.7	7.8
MONTH	9.4	7.2	8.5	8.7	7.6	7.9	8.4	7.6	7.9	8.1	7.3	7.7

01463500 DELAWARE RIVER AT TRENTON, NJ--Continued

PH (STANDARD UNITS), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	7.7	7.7	7.7	8.2	7.9	8.0	7.8	7.7	7.8	7.9	7.7	7.8
2	7.8	7.5	7.7	8.3	7.9	8.0	7.8	7.7	7.8	8.0	7.8	7.9
3	7.7	7.5	7.6	8.4	7.9	8.1	7.7	7.5	7.6	8.1	7.8	7.9
4	7.7	7.5	7.6	8.2	7.9	8.0	7.8	7.5	7.6	8.1	7.8	7.9
5	7.6	7.6	7.6	8.4	7.8	8.1	7.6	7.5	7.5	8.4	7.8	8.0
6	7.6	7.4	7.5	8.3	7.9	8.1	7.5	7.5	7.5	8.4	7.9	8.1
7	7.6	7.5	7.6	8.0	7.8	7.9	7.6	7.5	7.6	9.1	8.0	8.4
8	7.6	7.6	7.6	7.8	7.7	7.7	7.7	7.6	7.6	8.7	8.1	8.3
9	7.7	7.6	7.7	7.8	7.7	7.8	7.7	7.7	7.7	9.0	8.0	8.5
10	7.7	7.7	7.7	8.0	7.7	7.9	7.8	7.7	7.7	9.1	8.2	8.6
11	7.8	7.7	7.7	8.3	7.8	8.0	7.8	7.7	7.8	9.1	8.2	8.6
12	7.8	7.7	7.8	8.4	7.9	8.1	7.9	7.8	7.8	9.0	8.2	8.6
13	7.7	7.7	7.7	8.1	7.8	7.9	7.9	7.8	7.8	8.9	7.9	8.4
14	7.8	7.7	7.7	7.9	7.7	7.8	7.9	7.8	7.9	9.0	7.9	8.5
15	7.8	7.7	7.8	7.8	7.7	7.8	8.0	7.8	7.9	9.1	8.1	8.7
16	7.8	7.8	7.8	7.7	7.7	7.7	8.0	7.8	7.9	9.0	8.4	8.8
17	7.8	7.8	7.8	7.7	7.6	7.6	8.0	7.8	7.9	8.9	8.2	8.7
18	7.8	7.7	7.8	7.8	7.7	7.8	7.8	7.8	7.8	8.8	8.0	8.5
19	7.8	7.7	7.7	7.9	7.7	7.8	7.9	7.6	7.8	8.7	7.8	8.2
20	7.8	7.7	7.8	7.9	7.7	7.8	7.6	7.6	7.6	8.7	7.7	8.2
21	7.8	7.7	7.8	7.8	7.7	7.7	7.6	7.6	7.6	8.2	7.6	7.8
22	7.9	7.8	7.8	7.7	7.6	7.7	7.7	7.6	7.6	7.8	7.6	7.7
23	7.9	7.8	7.8	7.6	7.6	7.6	7.8	7.6	7.7	7.8	7.6	7.7
24	7.9	7.8	7.8	7.6	7.5	7.6	7.8	7.7	7.7	7.8	7.6	7.7
25	8.0	7.8	7.9	7.6	7.6	7.6	7.9	7.7	7.8	7.9	7.6	7.7
26	8.0	7.8	7.9	7.6	7.6	7.6	7.7	7.7	7.7	7.9	7.6	7.7
27	8.0	7.8	7.9	7.6	7.5	7.6	7.7	7.6	7.6	---	---	---
28	8.1	7.8	7.9	7.5	7.5	7.5	7.7	7.6	7.7	---	---	---
29	---	---	---	7.6	7.5	7.5	7.8	7.7	7.7	---	---	---
30	---	---	---	7.7	7.6	7.6	7.9	7.7	7.8	---	---	---
31	---	---	---	7.7	7.6	7.7	---	---	---	---	---	---
MONTH	8.1	7.4	7.7	8.4	7.5	7.8	8.0	7.5	7.7	9.1	7.6	8.2

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	---	7.9	7.8	7.9	8.6	7.5	8.1			
2	---	---	---	8.0	7.8	7.9	8.6	7.5	8.1			
3	---	---	---	7.8	7.8	7.8	8.7	7.5	8.2			
4	---	---	---	8.0	7.9	7.9	8.8	7.7	8.3			
5	---	---	---	8.0	7.8	7.9	8.7	7.7	8.2			
6	---	---	---	8.2	7.8	7.9	8.3	7.4	7.9			
7	---	---	---	8.5	7.8	8.1	8.6	7.4	8.0			
8	---	---	---	8.7	7.7	8.2	8.6	7.6	8.1			
9	-	---	---	8.8	7.7	8.3	8.3	7.2	7.7			
10	8.0	7.9	7.9	9.1	7.9	8.6	7.4	7.2	7.3			
11	8.0	7.9	7.9	9.0	8.0	8.5	7.5	7.3	7.4			
12	8.3	8.1	8.2	9.0	7.8	8.4	7.7	7.5	7.6			
13	8.4	8.2	8.3	9.0	8.0	8.5	8.0	7.6	7.8			
14	8.7	8.5	8.6	8.9	7.8	8.4	8.2	7.6	7.9			
15	8.7	8.3	8.5	8.9	7.7	8.3	8.5	7.6	8.0			
16	8.4	8.1	8.3	9.1	7.8	8.5	8.8	7.6	8.2			
17	8.2	7.9	8.0	9.2	8.0	8.7	8.8	8.0	8.3			
18	8.1	8.0	8.1	9.0	8.0	8.6	8.9	7.9	8.5			
19	8.0	8.0	8.0	9.5	8.2	9.0	9.0	8.1	8.6			
20	8.1	8.0	8.1	9.0	7.9	8.7	9.0	8.1	8.6			
21	8.3	8.1	8.2	9.0	7.8	8.4	9.1	8.1	8.6			
22	8.3	8.0	8.1	9.1	8.0	8.6	9.2	8.3	8.8			
23	8.4	8.0	8.2	8.8	8.0	8.4	8.9	8.3	8.6			
24	8.5	8.0	8.2	9.1	7.9	8.5	9.1	7.9	8.6			
25	8.7	8.1	8.3	9.3	8.1	8.8	8.8	8.1	8.5			
26	8.7	8.0	8.4	9.4	8.3	8.9	8.6	7.9	8.3			
27	9.0	8.1	8.6	9.5	8.3	8.9	8.1	7.7	7.8			
28	9.0	8.1	8.5	9.0	8.0	8.4	8.5	7.6	8.0			
29	8.4	7.8	8.1	8.6	7.8	8.2	8.8	7.7	8.2			
30	8.0	7.7	7.8	8.3	7.6	7.9	8.8	7.8	8.3			
31	---	---	---	8.5	7.5	7.9	8.4	7.9	---			
MONTH	9.0	7.7	8.2	9.5	7.5	8.4	9.2	7.2	8.2			
YEAR	9.5	7.2	8.0									

01463500 DELAWARE RIVER AT TRENTON, NJ--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	18.0	16.0	17.0	11.5	11.0	11.0	---	---	---	3.0	2.0	2.5
2	17.0	15.0	16.5	12.5	11.0	11.5	---	---	---	2.5	2.0	2.0
3	15.5	14.0	14.5	12.5	11.0	11.5	---	---	---	2.0	1.5	1.5
4	16.0	13.0	14.5	12.5	10.5	11.5	---	---	---	4.0	2.0	3.0
5	17.0	14.5	15.5	12.0	11.0	11.5	---	---	---	4.0	3.0	3.5
6	16.5	15.5	16.0	12.5	10.5	11.5	---	---	---	3.0	2.0	2.5
7	15.5	13.5	14.5	10.5	9.0	9.5	---	---	---	2.0	1.5	2.0
8	14.5	13.0	13.5	9.5	8.5	9.0	---	---	---	2.0	1.5	1.5
9	14.0	12.0	13.0	10.0	8.5	9.0	---	---	---	1.5	.0	1.0
10	15.0	11.5	13.0	9.0	8.0	8.5	---	---	---	.0	.0	.0
11	15.5	12.0	13.5	9.5	8.0	8.5	---	---	---	.0	.0	.0
12	15.0	12.5	13.5	9.0	7.5	8.0	---	---	---	.0	.0	.0
13	15.0	11.5	13.0	8.5	6.5	7.5	---	---	---	.0	.0	.0
14	15.5	11.5	13.5	8.0	7.0	7.5	---	---	---	.0	.0	.0
15	16.0	12.0	13.5	8.5	7.5	8.0	---	---	---	.0	.0	.0
16	15.5	13.0	14.0	9.0	8.0	8.5	---	---	---	.0	.0	.0
17	15.5	12.0	13.5	8.5	8.0	8.0	---	---	---	.0	.0	.0
18	13.5	12.5	13.0	9.0	8.5	8.5	2.0	1.0	---	.0	.0	.0
19	13.0	10.5	12.0	10.0	8.0	9.0	1.5	.0	.5	.0	.0	.0
20	13.0	9.5	11.0	9.5	9.0	9.5	.5	.0	.0	.0	.0	.0
21	14.0	10.5	12.0	9.0	7.5	8.5	.0	.0	.0	.0	.0	.0
22	14.0	11.5	13.0	7.5	7.0	7.0	.5	.0	.0	.0	.0	.0
23	13.5	13.0	13.0	7.0	6.0	6.5	3.0	.5	1.5	.0	.0	.0
24	14.0	11.5	12.5	6.0	5.5	6.0	2.0	1.5	2.0	.0	.0	.0
25	11.5	10.5	11.0	6.0	5.0	5.5	2.5	2.0	2.5	.0	.0	.0
26	12.0	11.0	11.5	---	---	---	2.0	1.5	1.5	.0	.0	.0
27	14.0	12.0	13.0	---	---	---	1.5	1.5	1.5	.0	.0	.0
28	14.5	13.0	13.5	---	---	---	2.0	1.0	1.5	.0	.0	.0
29	13.0	12.0	13.0	---	---	---	3.0	2.0	2.5	.0	.0	.0
30	12.0	11.0	11.5	---	---	---	2.5	1.5	2.0	.0	.0	.0
31	11.0	11.0	11.0	---	---	---	2.0	1.0	1.5	.0	.0	.0
MONTH	18.0	9.5	13.5	12.5	5.0	9.0	3.0	.0	1.5	4.0	.0	.5

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	.0	.0	.0	4.0	2.5	3.5	8.5	6.5	7.5	14.5	13.5	14.0
2	.0	.0	.0	4.5	3.0	4.0	8.5	7.0	8.0	15.5	13.5	14.5
3	1.0	.0	.0	5.0	3.5	4.0	8.0	7.0	7.5	16.0	14.0	15.0
4	1.5	1.0	1.0	3.5	3.0	3.0	7.5	5.5	7.0	16.5	14.5	15.5
5	1.0	.5	.5	5.5	3.0	4.0	5.5	5.0	5.0	17.0	15.0	16.0
6	.5	.0	.5	4.0	3.0	3.5	5.0	3.5	4.0	17.0	15.5	16.5
7	1.0	.0	.5	3.5	3.0	3.0	3.0	2.5	3.0	18.5	16.5	17.5
8	1.0	.0	.5	3.0	1.5	2.5	3.5	2.0	3.0	17.5	16.5	17.0
9	1.0	1.0	1.0	3.0	2.0	2.5	3.5	3.0	3.0	17.5	16.5	17.0
10	1.5	1.0	1.5	3.0	1.5	2.5	5.0	3.0	4.0	18.0	15.5	16.5
11	1.5	.5	1.0	4.5	3.0	4.0	6.5	4.5	5.5	18.5	15.5	17.0
12	1.5	.5	1.0	7.0	4.5	5.5	7.5	5.5	6.5	19.0	16.5	17.5
13	1.5	1.0	1.5	6.5	5.5	6.0	8.0	6.5	7.5	20.0	18.0	19.0
14	2.0	1.0	1.5	6.5	5.5	6.0	9.0	7.0	8.0	21.5	18.5	19.5
15	3.5	1.5	2.5	5.5	4.5	5.0	9.5	7.5	8.5	22.0	19.0	20.5
16	4.5	3.5	4.0	5.0	4.0	4.5	11.0	9.0	10.0	23.0	19.5	21.0
17	4.0	3.0	3.5	4.0	3.5	4.0	13.0	10.5	12.0	23.0	21.0	22.0
18	3.0	2.5	3.0	5.0	3.5	4.5	13.0	12.0	12.5	23.0	21.0	21.5
19	2.5	2.0	2.5	6.0	4.5	5.5	13.0	12.0	12.5	23.0	20.5	21.5
20	3.0	2.0	2.5	6.5	5.5	6.0	12.0	11.0	11.5	24.0	21.0	22.5
21	3.0	3.0	3.0	6.0	5.0	5.5	11.5	11.0	11.0	22.5	20.5	21.5
22	4.0	3.0	3.5	6.0	4.5	5.0	12.0	10.5	11.0	20.5	18.5	19.5
23	4.5	3.0	4.0	6.0	4.5	5.0	12.0	10.5	11.5	18.5	17.0	17.5
24	4.0	3.5	4.0	6.0	4.5	5.5	13.0	11.0	12.0	17.0	16.0	16.5
25	3.5	2.0	3.0	6.5	5.0	5.5	14.0	12.0	13.0	18.0	16.0	17.0
26	2.5	1.0	1.5	7.0	6.0	6.5	13.5	13.0	13.5	21.0	17.0	19.0
27	2.5	1.5	2.0	6.0	5.5	6.0	14.5	13.5	14.0	---	---	---
28	4.0	1.5	2.5	5.0	4.0	4.5	14.0	12.5	13.0	---	---	---
29	---	---	---	5.0	3.5	4.5	14.0	12.0	13.0	---	---	---
30	---	---	---	6.0	4.0	5.0	14.5	12.5	13.5	---	---	---
31	---	---	---	7.0	5.5	6.5	---	---	---	---	---	---
MONTH	4.5	.0	2.0	7.0	1.5	4.5	14.5	2.0	9.0	24.0	13.5	18.0

01463500 DELAWARE RIVER AT TRENTON, NJ--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	---	22.5	21.0	22.0	28.0	24.5	26.0	22.0	20.5	21.0
2	---	---	---	22.5	20.5	21.5	28.5	25.0	26.5	24.5	21.0	22.5
3	---	---	---	22.0	19.5	21.0	28.5	25.0	26.5	25.0	22.5	23.5
4	---	---	---	21.5	19.0	20.0	29.0	25.0	27.0	23.5	21.5	22.5
5	---	---	---	22.0	20.0	21.0	29.0	25.5	27.0	24.0	20.5	22.0
6	---	---	---	23,0	20.0	21.5	27.0	25.0	26.0	25.0	21.0	23.0
7	---	---	---	24.0	21.5	22.5	28.0	24.0	26.0	24.0	21.5	22.5
8	---	---	---	26.0	23.0	24.5	28.0	25.0	26.0	22.0	20.5	21.5
9	---	---	---	27.5	25.0	26.0	27.0	25.0	26.0	23.0	20.0	21.0
10	19.0	18.5	19.0	28.0	25.0	26.5	25.5	24.0	25.0	24.0	20.0	22.0
11	19.0	18.0	18.5	27.5	26.0	26.5	25.5	23.0	24.0	25.0	21.5	23.0
12	18.5	17.5	18.0	28.5	25.5	26.5	24.5	22.0	23.0	25.0	21.5	23.5
13	18.0	16.0	17.0	28.5	26.0	27.5	25.0	22.0	23.5	25.5	22.0	23.5
14	16.5	15.5	16.0	27.5	26.0	27.0	25.5	22.0	23.5	25.5	23.0	24.0
15	18.0	15.5	17.0	28.5	26.0	27.0	26.0	22.5	24.0	25.5	22.5	24.0
16	20.0	17.5	19.0	29.5	26.5	28.0	27.0	23.0	25.0	25.0	23.0	24.0
17	20.5	19.0	20.0	30.0	27.0	28.5	26.5	24.0	25.0	24.5	21.5	23.0
18	21.5	19.5	20.5	30.5	28.0	29.0	27.0	23.0	24.5	23.5	20.5	21.5
19	21.5	20.5	21.0	32.0	28.5	30.0	27.0	23.0	25.0	23.5	19.5	21.5
20	22.0	20.5	21.0	30.0	27.5	29.0	25.5	23.5	24.5	21.0	19.0	20.0
21	22.0	20.5	21.0	29.0	26.0	27.5	25.0	23.0	24.0	20.0	18.5	19.0
22	22.5	21.0	21.5	28.5	26.0	27.0	25.0	21.5	23.0	19.0	18.0	18.5
23	22.5	21.0	21.5	27.0	25.5	26.5	23.5	22.0	22.5	20.0	17.5	18.5
24	22.5	21.0	21.5	28.5	24.5	26.5	26.0	22.0	23.5	20.5	17.5	19.0
25	22.5	21.0	21.5	28.5	25.0	27.0	25.0	23.0	24.0	20.5	17.5	19.0
26	24.0	21.5	22.5	29.5	26.0	27.5	24.5	22.0	23.5	19.5	17.5	18.5
27	24.5	22.5	23.5	30.5	26.5	28.0	23.5	22.0	23.0	20.5	18.5	19.5
28	25.0	23.0	24.0	28.0	26.0	27.0	23.5	21.0	22.0	21.0	18.5	19.5
29	24.0	22.5	23.5	27.5	25.0	26.0	23.0	19.5	21.0	20.5	18.5	19.5
30	23.5	22.0	22.5	26.0	24.5	25.5	21.5	20.0	20.5	19.0	18.5	19.0
31	---	---	---	26.5	24.0	25.0	22.0	19.5	20.5	---	---	---
MONTH	25.0	15.5	20.5	32.0	19.0	26.0	29.0	19.5	24.0	25.5	17.5	21.5
YEAR	32.0	.0	13.0									

OXYGEN, DISSOLVED (DO), MG/L, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	12.9	8.6	10.5	11.3	10.6	11.0	---	---	---	14.4	13.3	13.8
2	11.9	7.6	9.7	11.4	10.3	10.8	---	---	---	13.8	13.2	13.5
3	12.5	8.9	10.6	11.4	10.7	11.0	---	---	---	13.9	13.6	13.7
4	13.7	9.4	11.2	11.7	10.5	11.1	---	---	---	13.5	12.7	13.0
5	13.5	9.3	11.1	10.8	9.8	10.4	---	---	---	13.0	12.7	12.8
6	12.9	9.1	10.7	10.6	9.6	10.1	---	---	---	13.4	13.1	13.3
7	12.4	8.8	10.4	10.7	10.1	10.3	---	---	---	13.5	13.5	13.5
8	13.1	9.1	10.9	11.5	10.5	10.9	---	---	---	13.6	13.5	13.6
9	13.9	9.5	11.4	11.7	10.9	11.2	---	---	---	13.8	13.6	13.7
10	14.5	9.9	11.8	11.9	11.3	11.5	---	---	---	14.2	13.8	14.1
11	13.6	9.7	11.3	12.4	11.0	11.6	---	---	---	14.4	14.2	14.3
12	14.0	9.7	11.7	12.8	11.0	11.9	---	---	---	14.4	13.2	13.9
13	14.6	10.0	12.0	13.3	11.6	12.4	---	---	---	13.4	13.0	13.2
14	14.8	10.1	12.0	13.3	11.6	12.3	---	---	---	13.3	12.9	13.1
15	14.4	9.9	11.7	12.6	11.2	11.8	---	---	---	13.1	12.8	13.0
16	13.6	9.4	11.3	11.8	10.3	11.0	---	---	---	13.1	13.0	13.1
17	14.3	9.6	11.5	12.5	10.1	11.2	---	---	---	13.4	13.3	13.3
18	12.4	8.9	10.6	11.1	10.0	10.5	14.3	13.6	---	13.8	13.6	13.8
19	12.6	8.6	10.6	12.6	9.9	11.2	14.8	13.5	14.1	14.1	14.0	14.0
20	14.1	10.3	11.8	11.5	10.2	10.8	15.1	13.7	14.5	14.2	13.9	14.1
21	14.0	10.3	11.7	12.1	10.4	11.1	15.4	14.4	14.8	14.2	13.9	14.0
22	13.3	9.7	11.2	12.5	10.8	11.4	14.9	14.0	14.4	14.0	13.8	13.9
23	11.4	8.9	10.0	12.7	10.8	11.8	15.0	13.6	14.1	14.2	13.9	14.1
24	12.5	9.4	10.7	13.6	11.7	12.5	14.4	13.4	13.8	14.0	13.8	14.0
25	11.9	10.1	10.8	13.7	12.2	12.8	14.1	13.4	13.6	13.9	13.7	13.8
26	10.9	9.0	10.1	---	---	---	14.5	13.4	13.9	14.0	13.8	13.9
27	9.9	8.1	8.9	---	---	---	14.2	13.7	13.9	14.1	13.9	14.0
28	9.8	8.7	9.2	---	---	---	14.8	13.7	14.1	14.0	13.9	13.9
29	9.2	8.7	8.8	---	---	---	14.6	13.6	14.0	13.9	13.7	13.8
30	10.9	9.6	10.3	---	---	---	14.9	13.6	14.1	13.8	13.6	13.7
31	11.1	10.9	11.0	---	---	---	15.0	13.8	14.3	13.7	13.4	13.6
MONTH	14.8	7.6	10.8	13.7	9.6	11.3	15.4	13.4	14.1	14.4	12.7	13.7

01463500 DELAWARE RIVER AT TRENTON, NJ--Continued

OXYGEN, DISSOLVED (DO), MG/L, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	13.4	13.0	13.3	14.0	13.1	13.6	12.4	11.9	12.1	10.4	9.7	10.1
2	13.2	13.0	13.1	14.2	12.8	13.5	12.2	11.8	12.0	10.5	9.4	9.9
3	13.7	13.1	13.5	14.7	12.5	13.5	12.1	11.6	12.0	10.4	9.0	9.6
4	13.9	13.6	13.7	14.2	13.2	13.6	12.2	11.7	11.9	9.9	8.7	9.2
5	14.1	13.9	14.0	15.2	12.9	13.9	12.7	12.3	12.5	10.6	8.6	9.4
6	14.0	13.8	13.9	14.9	13.5	14.2	12.9	12.7	12.7	10.5	8.5	9.4
7	14.0	13.9	14.0	14.0	13.4	13.6	13.4	12.9	13.2	12.2	8.5	10.0
8	14.2	13.9	14.0	13.9	13.5	13.7	13.7	13.4	13.5	10.7	8.5	9.5
9	13.9	13.6	13.8	13.8	13.5	13.6	13.4	13.2	13.3	11.7	8.5	9.9
10	13.8	13.5	13.6	14.9	13.8	14.2	13.3	12.9	13.2	12.5	8.7	10.4
11	13.9	13.7	13.8	14.8	13.5	14.2	13.0	12.4	12.8	12.5	9.0	10.5
12	13.9	13.7	13.8	14.9	13.1	13.8	12.6	12.2	12.4	11.9	8.6	10.1
13	13.8	13.7	13.7	13.4	12.1	12.9	12.3	11.8	12.1	11.5	7.6	9.5
14	13.9	13.7	13.8	12.6	12.0	12.3	12.2	11.7	11.9	12.3	7.5	9.9
15	13.9	13.5	13.8	13.2	12.4	12.8	12.2	11.7	11.9	12.6	7.9	10.2
16	13.6	13.2	13.3	12.7	12.4	12.6	12.0	11.3	11.7	12.3	8.2	10.2
17	13.3	13.1	13.2	12.5	12.4	12.5	11.4	10.6	11.1	11.5	7.8	9.6
18	13.6	13.2	13.4	13.1	12.5	12.8	10.6	10.4	10.5	11.1	7.6	9.4
19	13.7	13.5	13.6	12.9	12.4	12.6	10.8	10.5	10.6	10.7	7.4	8.9
20	13.8	13.3	13.5	12.8	12.2	12.5	10.9	10.6	10.8	10.8	7.0	8.7
21	13.3	12.9	13.1	12.5	12.3	12.4	10.9	10.8	10.8	9.1	6.6	7.7
22	13.7	12.8	13.2	12.9	12.4	12.6	11.2	10.8	11.0	8.4	7.1	7.7
23	13.6	12.9	13.3	12.9	12.5	12.7	11.3	10.6	10.9	8.7	7.5	8.0
24	12.8	12.4	12.5	12.9	12.6	12.8	11.1	10.3	10.8	9.2	8.0	8.5
25	13.1	12.2	12.7	12.8	12.5	12.6	10.9	9.6	10.4	9.5	8.4	8.9
26	14.3	12.8	13.7	12.5	12.2	12.4	9.8	9.6	9.7	9.3	8.2	8.7
27	14.5	13.7	14.1	12.4	12.2	12.3	9.8	8.6	9.2	---	---	---
28	14.3	13.3	13.9	13.0	12.5	12.8	10.5	9.4	10.1	---	---	---
29	---	---	---	13.4	13.1	13.3	10.7	10.2	10.4	---	---	---
30	---	---	---	13.4	12.9	13.2	10.8	10.2	10.6	---	---	---
31	---	---	---	12.9	12.2	12.6	---	---	---	---	---	---
MONTH	14.5	12.2	13.6	15.2	12.0	13.1	13.7	8.6	11.5	12.6	6.6	9.4

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	---	7.6	7.2	7.5	10.9	6.7	8.6	9.5	7.2	8.1
2	---	---	---	8.3	7.6	8.0	11.2	6.6	8.7	10.2	6.9	8.2
3	---	---	---	8.3	7.9	8.1	11.4	6.8	8.8	10.4	6.9	8.4
4	---	---	---	8.8	8.1	8.5	11.7	6.8	9.0	10.0	7.1	8.4
5	---	---	---	9.3	8.2	8.7	10.9	6.7	8.5	10.6	7.3	8.8
6	---	---	---	9.9	8.3	9.0	9.0	6.2	7.6	10.9	7.4	8.9
7	---	---	---	10.2	8.2	9.1	10.5	6.4	8.3	10.9	7.4	8.8
8	---	---	---	11.0	8.0	9.3	10.6	6.6	8.3	10.6	7.6	8.8
9	---	---	---	11.5	7.6	9.4	9.1	5.8	7.0	11.0	7.8	9.2
10	8.7	8.2	8.4	12.1	7.5	9.7	5.9	5.0	5.3	11.2	7.8	9.3
11	8.9	8.2	8.5	11.1	7.3	9.0	6.3	5.7	6.0	11.1	7.7	9.2
12	9.3	8.4	8.8	11.7	7.1	9.2	7.3	6.2	6.7	11.1	7.8	9.2
13	9.0	8.5	8.8	11.7	7.2	9.3	8.8	6.5	7.6	11.2	7.7	9.2
14	9.1	8.8	8.9	11.2	6.9	8.9	9.3	7.3	8.2	10.7	7.5	8.7
15	9.3	8.9	9.1	11.5	7.1	9.0	10.1	7.3	8.5	10.3	7.3	8.5
16	9.3	8.5	8.9	12.0	7.2	9.4	11.3	7.3	9.0	9.5	7.2	8.1
17	8.5	7.8	8.1	12.8	7.2	9.8	11.4	7.6	8.9	10.1	7.2	8.5
18	8.1	7.8	8.0	11.4	6.9	9.3	12.3	7.4	9.5	10.4	7.5	8.6
19	8.4	7.9	8.1	14.0	6.9	10.1	13.1	7.8	10.1	10.7	7.5	8.9
20	8.8	8.0	8.3	9.4	7.0	8.2	12.2	7.9	9.8	8.6	7.8	8.1
21	8.8	7.8	8.3	11.3	6.5	8.6	12.9	7.6	10.0	10.0	7.7	8.8
22	8.8	7.7	8.2	11.3	6.7	8.8	13.6	8.1	10.5	9.7	8.3	8.9
23	10.0	7.6	8.8	10.3	6.8	8.3	11.0	8.0	9.3	10.1	7.9	9.0
24	10.0	8.1	9.0	12.1	7.0	9.3	12.4	7.7	9.8	10.9	8.5	9.4
25	10.1	8.2	9.0	13.2	7.4	10.0	10.1	7.9	9.0	10.8	8.8	9.7
26	10.9	8.1	9.3	13.6	7.6	10.1	10.1	7.5	8.6	11.3	8.9	9.9
27	11.1	7.7	9.2	13.1	6.9	9.7	8.6	7.0	7.7	11.1	8.7	9.7
28	11.4	7.5	9.1	9.0	6.9	8.1	9.8	7.1	8.3	10.7	8.3	9.2
29	8.4	7.4	7.7	10.4	6.7	8.2	10.8	7.4	8.8	10.7	8.2	9.1
30	7.4	7.1	7.2	9.3	6.7	7.9	10.9	7.5	9.0	9.7	8.2	8.7
31	---	---	---	10.2	6.4	8.0	11.2	8.2	9.3	---	---	---
MONTH	11.4	7.1	8.6	14.0	6.4	8.9	13.6	5.0	8.5	11.3	6.9	8.9
YEAR	15.4	5.0	10.9									

01463568 ASSUNPINK CREEK AT CARSONS MILLS, NJ

LOCATION.--Lat 40°13'05", long 74°33'08", Mercer County, Hydrologic Unit 02040105, at bridge at Carsons Mills, 0.1 mi (0.2 km) upstream from New Sharon Branch, and 1.3 mi (2.0 km) northeast of Pages Corner.

DRAINAGE AREA.--12.5 mi² (32.4 km²).

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976 to May 1982 (discontinued).

COOPERATION.--Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	STREPTOCOCCI FECAL (MPN)	HARDNESS (MG/L AS CACO3)
JAN										
29...	0945	13	134	6.5	2.0	12.1	.9	33	7	39
MAR										
18...	1400	16	112	6.7	11.0	11.5	--	5	10	43
JUN										
01...	1400	40	114	7.2	20.0	8.3	2.3	130	79	38

DATE	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
JAN									
29...	8.2	4.5	4.5	2.7	4.0	--	28	9.9	.2
MAR									
18...	9.3	4.9	4.1	2.2	5.0	--	29	9.2	.1
JUN									
01...	8.2	4.2	3.6	1.8	9.0	<.5	24	8.2	.2

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
JAN									
29...	5.3	84	--	--	--	.70	--	.06	--
MAR									
18...	4.3	66	<.010	1.1	.200	E.62	--	.09	1.7
JUN									
01...	3.8	80	.010	.60	.110	.70	1.3	.15	4.8

DATE	TIME	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)
JUN								
01...	1400	<10	1	<10	20	1	10	5

DATE	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	PHENOLS (UG/L)
JUN								
01...	1400	4	140	<.1	7	<1	10	1

01463620 ASSUNPINK CREEK NEAR CLARKSVILLE, NJ

LOCATION.--Lat 40°16'11", long 74°40'20", Mercer County, Hydrologic Unit 02040105, on left bank 200 ft (61 m) upstream from bridge on Quaker Bridge Road, 1.9 mi (3.1 km) south of Clarksville, 2.0 mi (3.2 km) upstream from Shipetaukin Creek, and 7.6 mi (12.2 km) upstream of mouth.

DRAINAGE AREA.--34.3 mi^2 (88.8 km^2).

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1963, 1965, 1967, and 1979 to current year.

COOPERATION.--Field data and samples for laboratory analyses supplied by New Jersey Department of Environmental Protection, Water Resources Division. Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	STREP-TOCOCCI FECAL (MPN)
JAN 25...	1045	71	149	5.9	2.0	11.3	1.8	46	49
MAR 17...	1030	76	136	7.3	7.0	12.3	2.0	2	9
MAY 26...	1400	65	137	7.7	22.0	11.0	<2.0	2	50
JUL 26...	0925	67	128	7.1	27.0	7.6	E2.0	<20	23
AUG 17...	1310	59	118	7.0	26.0	8.5	E2.1	20	350

DATE	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
JAN 25...	46	9.7	5.2	5.7	2.7	7.0	26	13	.1
MAR 17...	43	9.4	4.8	7.2	2.7	7.0	27	12	.1
MAY 26...	40	8.6	4.6	4.5	2.4	20	19	11	.2
JUL 26...	43	9.0	5.0	6.6	2.2	21	14	12	.2
AUG 17...	39	8.2	4.4	5.2	1.9	18	15	11	.2

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
JAN 25...	7.4	96	--	2.5	--	.25	2.7	.12	1.6
MAR 17...	4.9	89	.020	1.9	.110	E2.30	--	.15	2.4
MAY 26...	1.2	83	.030	1.1	.100	E.30	--	.09	4.6
JUL 26...	3.2	94	.020	.40	.120	.72	1.1	.12	5.4
AUG 17...	1.7	82	<.010	.40	.080	.60	1.0	.06	4.2

01464000 ASSUNPINK CREEK AT TRENTON, NJ

LOCATION.--Lat 40°13'27", long 74°44'58", Mercer County, Hydrologic Unit 02040105, on left bank upstream from Chambers Street Bridge in Trenton, and 1.5 mi (2.4 km) upstream from mouth.

DRAINAGE AREA.--90.6 mi² (234.7 km²), revised.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1923 to current year.

GAGE.--Water-stage recorder. Concrete control since July 10, 1932. Datum of gage is 24.76 ft (7.547 m) National Geodetic Vertical Datum of 1929 (levels from New Jersey Geological Survey bench mark).

REMARKS.--Water-discharge records good. Records include water diverted from outside the basin since February 1954 for municipal supply which returns to Assunpink Creek through Ewing-Lawrence Sewerage Authority Treatment Plant, 2.4 mi (3.9 km) above station (records given herein). In addition there is an average inflow of about 2.0 ft³/s (0.057 m³/s) from industrial use of water that originates outside the basin. Some diversion for irrigation in headwater area during summer months. Flow regulated by several flood-control reservoirs upstream of gage since mid-1970's.

AVERAGE DISCHARGE.--59 years, 128 ft³/s (3.625 m³/s), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,450 ft³/s (154 m³/s) July 21, 1975, gage height, 14.61 ft (4.453 m), from high-water mark in gage house; minimum, 1.0 ft³/s (0.028 m³/s) Aug. 21, Oct. 22, 1931, gage height, 0.25 ft (0.076 m); minimum daily, 4.0 ft³/s (0.11 m³/s) July 21, Aug. 8, Sept. 2, 1929.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 900 ft³/s (25.5 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Jan. 4	1345	*1970	55.8	8.67	2.643	Apr. 3	2315	1470	41.6	7.43	2.265
Feb. 3	0715	1540	43.6	7.60	2.316	Apr. 28	0015	928	26.3	5.94	1.811

Minimum discharge, 30 ft³/s (0.85 m³/s) Sept. 19, 20, gage height, 2.52 ft (0.768 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	48	70	122	229	597	100	116	179	156	93	63	67
2	65	93	308	180	332	101	94	161	181	82	61	60
3	47	70	137	133	1210	101	362	148	132	162	59	123
4	44	66	111	1280	678	109	660	137	118	176	56	55
5	45	63	101	713	413	135	285	127	112	104	55	47
6	50	106	88	385	328	129	321	119	103	90	54	44
7	48	71	84	315	276	317	285	112	106	84	50	54
8	43	64	101	266	243	360	264	104	93	80	47	52
9	42	66	87	227	246	220	275	99	86	75	69	42
10	41	74	79	188	235	186	251	94	81	70	82	41
11	40	64	74	158	204	173	251	88	77	67	58	39
12	42	58	71	136	175	164	212	85	73	70	129	37
13	42	56	68	125	160	153	190	83	267	65	61	38
14	41	54	80	121	144	138	177	80	286	61	53	39
15	42	72	427	114	137	129	158	76	165	60	47	39
16	42	96	574	106	140	129	145	71	228	59	47	42
17	40	88	330	100	136	147	149	70	512	56	46	39
18	56	103	239	96	124	128	343	68	264	53	45	37
19	59	84	193	92	171	120	202	67	195	54	43	35
20	45	150	160	91	169	113	168	95	159	161	44	67
21	44	110	140	89	163	109	152	112	137	97	44	59
22	43	90	129	85	154	106	138	95	121	74	39	69
23	57	83	141	157	136	101	127	91	127	69	42	160
24	74	78	144	180	128	98	120	80	100	67	46	58
25	54	73	125	144	119	95	111	93	91	62	207	50
26	107	66	116	128	110	95	316	80	83	67	66	46
27	119	65	112	113	106	87	388	76	79	70	55	132
28	125	63	114	106	101	82	552	108	79	187	49	63
29	90	59	104	101	---	82	270	403	257	93	43	54
30	84	60	96	100	---	82	209	217	152	76	44	51
31	69	---	91	125	---	116	---	173	---	68	44	---
TOTAL	1788	2315	4746	6383	7135	4205	7291	3591	4620	2652	1848	1739
MEAN	57.7	77.2	153	206	255	136	243	116	154	85.5	59.6	58.0
MAX	125	150	574	1280	1210	360	660	403	512	187	207	160
MIN	40	54	68	85	101	82	94	67	73	53	39	35
(+)	11.2	11.5	13.8	12.8	18.4	15.6	19.6	15.2	14.2	12.8	11.4	11.4

CAL YR 1981 TOTAL 35402 MEAN 97.0 MAX 574 MIN 30 + 12.6
WTR YR 1982 TOTAL 48313 MEAN 132 MAX 1280 MIN 35 + 14.0

+ Inflow from outside the basin, 2.4 mi (3.9 km) upstream of station through plant of Ewing-Lawrence Sewerage Authority, in cubic feet per second.

01464500 CROSSWICKS CREEK AT EXTONVILLE, NJ

LOCATION.--Lat 40°08'15", long 74°36'02", Mercer County, Hydrologic Unit 02040201, on right bank upstream from highway bridge in Extonville, 0.5 mi (0.8 km) upstream from Pleasant Run, and 0.7 mi (1.1 km) downstream from Mercer-Monmouth County line.

DRAINAGE AREA.--81.5 mi^2 (211.1 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1940 to October 1951, October 1952 to current year.

REVISED RECORDS.--WDR NJ-79-2: 1971(M).

GAGE.--Water-stage recorder and concrete control. Datum of gage is 24.94 ft (7.602 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Water-discharge records good. Flow regulated occasionally by lakes above station.

AVERAGE DISCHARGE.--41 years (water years 1941-51, 1953-82), 135 ft^3/s (3.823 m^3/s), 21.92 in/yr (557 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,860 ft^3/s (138 m^3/s) Sept. 1, 1978, gage height, 14.18 ft (4.322 m); minimum 13.1 ft^3/s (0.37 m^3/s) Feb. 14, 1942 (result of freezeup); minimum daily, 16 ft^3/s (0.45 m^3/s) Aug. 30 to Sept. 3, Sept. 12, 1966.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 750 ft^3/s (21.2 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Jan. 5	1100	884	25.0	7.40	2.256	June 17	1800	1180	33.4	8.39	2.557
Feb. 4	0800	778	22.0	6.99	2.131	July 29	1400	*1230	34.8	8.53	2.600
Apr. 30	0100	829	23.5	7.19	2.192						

Minimum discharge, 36 ft^3/s (1.02 m^3/s) Oct. 1, gage height, 2.41 ft (0.735 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	36	75	59	115	449	88	112	162	150	291	119	47
2	51	71	160	175	359	88	95	138	123	139	97	49
3	50	67	174	124	428	89	96	119	102	109	83	73
4	43	64	116	358	684	86	239	107	89	153	73	67
5	40	62	106	791	331	104	158	99	90	116	67	51
6	40	71	98	376	193	104	179	92	98	92	67	47
7	49	87	86	186	150	182	301	88	96	80	62	45
8	48	72	84	142	123	358	195	84	93	74	56	46
9	42	67	90	123	121	228	175	82	87	80	64	45
10	41	64	80	110	143	153	157	77	79	67	75	42
11	39	64	75	92	125	130	141	73	74	59	71	41
12	40	62	72	92	111	121	126	70	70	59	69	40
13	40	58	69	103	107	113	115	72	99	72	74	39
14	40	57	67	118	102	107	113	70	381	63	61	39
15	44	57	238	124	99	99	105	66	316	58	54	40
16	44	86	517	121	105	95	99	64	212	58	50	43
17	42	86	525	116	105	116	99	67	941	55	49	47
18	41	118	264	108	97	114	263	59	686	51	50	41
19	78	110	157	97	102	104	242	56	245	49	48	39
20	66	93	121	96	132	98	145	58	160	62	47	45
21	49	94	112	94	122	94	123	87	124	75	57	81
22	47	79	93	90	120	91	107	89	105	58	55	67
23	46	71	101	95	107	86	97	93	95	49	48	93
24	72	66	114	281	101	83	92	91	85	49	66	86
25	73	64	102	278	95	82	88	117	79	46	79	58
26	148	62	94	177	87	83	97	131	75	45	89	51
27	138	60	91	121	86	80	231	98	73	66	64	80
28	194	60	92	104	87	75	414	105	71	292	58	93
29	150	57	89	98	---	75	480	578	69	1040	51	60
30	97	54	82	95	---	75	239	552	278	451	49	54
31	82	---	78	170	---	79	---	221	---	157	47	---
TOTAL	2010	2158	4206	5170	4871	3480	5123	3865	5245	4115	1999	1649
MEAN	64.8	71.9	136	167	174	112	171	125	175	133	64.5	55.0
MAX	194	118	525	791	684	358	480	578	941	1040	119	93
MIN	36	54	59	90	86	75	88	56	69	45	47	39
CFSM	.80	.88	1.67	2.05	2.14	1.37	2.10	1.53	2.15	1.63	.79	.68
IN.	.92	.98	1.92	2.36	2.22	1.59	2.34	1.76	2.39	1.88	.91	.75

CAL YR 1981 TOTAL 33635 MEAN 92.2 MAX 525 MIN 29 CFSM 1.13 IN 15.35
WTR YR 1982 TOTAL 43891 MEAN 120 MAX 1040 MIN 36 CFSM 1.47 IN 20.03

01464500 CROSSWICKS CREEK AT EXTONVILLE, NJ--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1965 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: October 1966 to June 1970.
SUSPENDED-SEDIMENT DISCHARGE: February 1965 to June 1970.

COOPERATION.--Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	STREP-TOCOCCI FECAL (MPN)	HARD-NESS (MG/L AS CACO3)
FEB										
08...	1050	121	145	7.0	1.0	12.2	3.9	80	20	43
MAR										
31...	1030	76	176	7.2	9.0	9.7	3.2	<20	70	52
MAY										
27...	1000	98	147	7.1	17.5	6.8	>4.4	79	21	45
JUL										
20...	1030	47	189	7.2	25.5	4.6	5.1	80	790	51
AUG										
05...	1040	68	154	7.1	23.0	5.7	2.2	70	490	48
SEP										
29...	1045	58	159	7.1	17.5	6.8	8.4	330	490	47

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
FEB									
08...	13	2.5	7.0	2.2	16	--	24	11	.2
MAR									
31...	16	3.0	9.8	2.8	23	--	28	13	.4
MAY									
27...	14	2.4	6.4	2.5	20	<.5	21	10	.3
JUL									
20...	16	2.7	11	2.9	30	--	21	13	.4
AUG									
05...	15	2.6	8.0	2.5	22	--	26	11	.3
SEP									
29...	15	2.4	8.6	3.3	20	--	18	13	.3

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
FEB									
08...	8.6	80	--	.80	--	3.40	4.2	.49	3.1
MAR									
31...	8.6	122	.040	1.0	.970	E1.40	--	.73	4.6
MAY									
27...	8.7	101	.080	1.1	.590	E1.10	--	.67	6.1
JUL									
20...	11	138	.240	1.6	.420	1.50	3.1	.70	6.6
AUG									
05...	12	127	.100	1.3	.460	1.10	2.4	.61	7.1
SEP									
29...	9.2	98	.090	1.2	E.470	1.10	2.3	.52	3.8

01464500 CROSSWICKS CREEK AT EXTONVILLE, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)
MAY								
27...	1000	<10	2	<10	20	1	10	6

DATE	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	PHENOLS (UG/L)
MAY								
27...	4100	13	80	.1	4	<1	30	12

01464505 CROSSWICKS CREEK AT GROVEVILLE, NJ

LOCATION.--Lat 40°10'26", long 74°40'48", Mercer County, Hydrologic Unit 02040201, at bridge on U.S. Route 130 in Groveville, 0.3 mi (0.5 km) upstream from Doctors Creek, and 0.6 mi (1.0 km) southwest of Yardville.

DRAINAGE AREA.--98.2 mi^2 (254.3 km^2).

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976 to current year.

COOPERATION.--Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	STREPTOCOCCI FECAL (MPN)	HARDNESS (MG/L AS CACO3)
JAN 25...	1105	325	6.8	.0	12.2	25	49	3500	57
MAR 31...	1230	228	7.2	9.0	10.6	2.7	94	490	56
MAY 26...	0940	177	7.1	15.0	8.5	<4.8	350	2400	48
JUL 20...	1330	126	7.4	26.0	5.6	4.8	3300	1700	49
AUG 05...	1235	180	7.1	23.5	6.0	1.8	--	--	51
SEP 29...	1215	262	7.2	18.0	7.2	16	1100	700	53

DATE	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
JAN 25...	13	5.9	20	3.2	11	--	25	62	.2
MAR 31...	16	3.8	20	2.5	25	--	30	28	.5
MAY 26...	14	3.2	8.9	3.0	21	--	25	16	.3
JUL 20...	14	3.4	20	3.4	28	--	25	26	.4
AUG 05...	15	3.3	11	2.9	20	--	25	16	.3
SEP 29...	16	3.2	25	4.4	24	<.5	23	35	.4

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
JAN 25...	8.6	181	--	1.1	--	3.60	4.7	.58	13
MAR 31...	8.7	152	.040	1.4	.460	E1.45	--	.67	5.2
MAY 26...	8.7	93	.070	1.4	.430	E.95	--	.70	8.5
JUL 20...	10	159	.090	1.9	.520	1.20	3.1	.80	12
AUG 05...	11	135	.060	1.6	.240	.97	2.6	.70	--
SEP 29...	10	163	.120	1.5	E1.10	2.00	3.5	.83	7.1

01464505 CROSSWICKS CREEK AT GROVEVILLE, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)
SEP 29...	1215	20	2	<10	60	1	10	5

DATE	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	PHENOLS (UG/L)
SEP 29...	2200	3	40	.1	4	<1	10	1

01464515 DOCTORS CREEK AT ALLENTOWN, NJ

LOCATION.--Lat 40°10'37", long 74°35'57", Monmouth County, Hydrologic Unit 02040201, at bridge on Breza Road in Allentown, and 0.8 mi (1.3 km) downstream from Conines Millpond dam.

DRAINAGE AREA.--17.4 mi² (45.1 km²).

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976 to current year.

COOPERATION.--Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	STREPTOCOCCI FECAL (MPN)	HARDNESS (MG/L AS CACO3)
FEB 08...	1340	26	156	--	2.0	12.6	2.4	110	240	43
APR 01...	0940	23	149	7.3	10.0	11.3	2.1	40	34	52
MAY 26...	1250	35	145	7.1	17.5	8.4	<2.4	330	920	48
JUL 20...	1200	12	190	7.2	25.5	4.9	4.5	540	540	63
AUG 10...	1100	10	167	7.2	23.5	5.8	1.4	700	800	58
SEP 28...	0945	25	166	7.4	18.0	7.7	6.0	1300	800	57

DATE	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
FEB 08...	9.8	4.5	6.1	3.2	12	--	24	13	.2
APR 01...	12	5.4	6.1	2.7	15	--	27	13	.2
MAY 26...	11	5.1	4.5	2.4	19	<.5	22	12	.2
JUL 20...	15	6.3	8.7	3.4	32	--	17	14	.3
AUG 10...	14	5.7	6.2	3.5	33	--	15	14	.3
SEP 28...	14	5.4	6.5	4.3	31	--	16	13	.3

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
FEB 08...	7.8	70	--	1.7	--	.65	2.4	.31	1.5
APR 01...	3.2	104	.020	.80	.340	E.80	--	.28	2.5
MAY 26...	6.4	109	.040	.80	.320	E.60	--	.25	3.7
JUL 20...	8.4	124	.140	.80	1.40	2.30	3.1	1.10	6.2
AUG 10...	6.6	99	.050	.42	E.590	1.10	1.5	.80	4.8
SEP 28...	8.2	99	.030	.29	E.650	1.20	1.5	.80	3.4

DATE	TIME	NITROGEN, NH4 + ORG. TOT IN BOT MAT (MG/KG AS N)	CARBON, INORGANIC, TOT IN BOT MAT (G/KG AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (G/KG AS C)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)
MAY 26...	1250	--	--	--	10	1	--	<10	10	1	--
SEP 28...	0945	960	.2	4.7	--	--	<1	--	--	--	<1

01464515 DOCTORS CREEK AT ALLENTOWN, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)
MAY											
26...	10	--	--	5	--	2100	--	7	--	90	--
SEP											
28...	--	3	10	--	5	--	6700	--	40	--	160

DATE	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, RECOV. FM BOTTOM MATERIAL (UG/G AS NI)	SELENIUM, TOTAL (UG/L AS SE)	SELENIUM, TOTAL IN BOTTOM MATERIAL (UG/G)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	PHENOLS (UG/L)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	PCN, TOTAL IN BOTTOM MATERIAL (UG/KG)
MAY											
26...	.4	--	6	--	<1	--	50	--	9	--	--
SEP											
28...	--	<.01	--	<10	--	<1	--	42	--	8	<1.0

DATE	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIAZINON, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ETHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)
MAY											
26...	--	--	--	--	--	--	--	--	--	--	--
SEP											
28...	<.1	8.0	5.4	2.3	3.0	<.1	3.9	1.1	<.1	<.1	<.1

DATE	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	MALATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARATHION, TOT. IN BOTTOM MATL. (UG/KG)	METHYL TRITHION, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	PARATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	PERTHANE IN BOTTOM MATERIL (UG/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)	TRITHION, TOTAL IN BOTTOM MATERIAL (UG/KG)
MAY											
26...	--	--	--	--	--	--	--	--	--	--	--
SEP											
28...	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<1.00	<10	<.1

01464522 DOCTORS CREEK AT ROUTE 130 NEAR YARDVILLE, NJ

LOCATION.--Lat 40°10'31", long 74°40'33", Mercer County, Hydrologic Unit 02040201, at bridge on U.S. Route 130, 0.3 mi (0.5 km) upstream from mouth, 0.4 mi (0.7 km) northwest of Groveville, 0.6 mi (1.0 km) southwest of Yardville, and 2.5 mi (4.0 km) southwest of Haines Corner.

DRAINAGE AREA.--25.8 mi² (66.8 km²).

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976 to current year.

COOPERATION.--Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	STREPTOCOCCI FECAL (MPN)	HARDNESS (MG/L AS CACO3)
JAN									
25...	1315	252	6.8	.0	12.8	1.8	13	26	48
MAR									
31...	1415	177	7.1	9.5	11.1	2.4	240	130	54
MAY									
26...	1100	156	7.3	16.5	9.2	<4.6	>2400	920	52
JUL									
28...	1245	104	6.7	22.5	7.1	6.0	--	--	30
AUG									
10...	1315	184	7.4	24.5	7.4	.6	500	920	61
SEP									
28...	1215	173	7.6	17.5	9.1	1.0	240	1600	56

DATE	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
JAN									
25...	14	3.1	36	3.2	11	--	30	38	.2
MAR									
31...	12	5.8	10	2.8	14	--	28	20	.2
MAY									
26...	12	5.4	5.7	2.4	19	--	24	14	.2
JUL									
28...	7.0	3.1	4.5	2.9	8.0	--	15	9.2	.2
AUG									
10...	14	6.4	10	3.4	27	--	20	21	.2
SEP									
28...	13	5.7	7.5	4.1	24	<.5	19	17	.2

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
JAN									
25...	7.0	149	--	2.0	--	.50	2.5	.18	2.1
MAR									
31...	4.0	122	.040	1.8	.360	E.85	--	.21	3.5
MAY									
26...	6.7	121	.040	1.5	.210	E.60	--	.21	3.8
JUL									
28...	3.6	74	.200	1.1	.120	3.10	4.2	1.30	19
AUG									
10...	7.5	117	.050	1.6	E.130	.57	2.2	.34	3.8
SEP									
28...	7.6	105	.040	1.1	E.050	.47	1.6	.55	2.9

01464522 DOCTORS CREEK AT ROUTE 130 NEAR YARDVILLE, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	NITROGEN,NH4 + ORG. TOT IN BOT MAT (MG/KG AS N)	CARBON, INORGANIC, TOT IN BOT MAT (G/KG AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (G/KG AS C)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)
SEP											
28...	1215	1200	4.0	9.4	10	2	<1	<10	30	1	<1

DATE	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)
SEP											
28...	10	3	10	6	1	910	4800	6	10	20	60

DATE	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, RECOV. FM BOTTOM MATERIAL (UG/G AS NI)	SELENIUM, TOTAL (UG/L AS SE)	SELENIUM, TOTAL IN BOTTOM MATERIAL (UG/G)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	PHENOLS (UG/L)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	PCN, TOTAL IN BOTTOM MATERIAL (UG/KG)
SEP											
28...	<.1	<.01	4	<10	<1	<1	<10	19	<1	<1	<1.0

DATE	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIAZINON, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ETHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)
SEP											
28...	<.1	2.0	2.0	1.6	2.0	<.1	.3	<.1	<.1	<.1	<.1

DATE	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	MALATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARATHION, TOT. IN BOTTOM MATL. (UG/KG)	METHYL TRITHION, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	PARATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	PERTHANE IN BOTTOM MATERIL (UG/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)	TRITHION, TOTAL IN BOTTOM MATERIAL (UG/KG)
SEP											
28...	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<1.00	<10	<.1

01464538 CRAFTS CREEK AT COLUMBUS, NJ

LOCATION.--Lat 40°04'44", long 74°43'07", Burlington County, Hydrologic Unit 02040201, at bridge on Columbus-Mansfield Road, 0.4 mi (0.6 km) north of Columbus, and 6.0 mi (9.6 km) northeast of Mount Holly.

DRAINAGE AREA.--5.38 mi^2 (13.94 km^2).

WATER-QUALITY RECORDS

PERIOD OF RECORD.--February 1981 to May 1982 (discontinued).

COOPERATION.--Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	STREP-TOCOCCI FECAL (MPN)	HARD-NESS (MG/L AS CACO3)
JAN 20...	1400	8.4	182	6.2	.0	12.0	.7	2	<2	55
MAR 24...	1305	2.2	175	6.7	11.0	11.9	--	<20	<2	54
MAY 27...	1140	--	160	6.8	19.5	9.5	>.3	330	27	53

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
JAN 20...	12	6.0	5.6	3.0	3.0	--	37	14	.1
MAR 24...	11	6.5	6.2	3.3	7.0	--	37	16	.2
MAY 27...	12	5.5	4.4	3.2	10	<.5	31	12	.2

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
JAN 20...	12	108	--	2.1	--	.18	2.3	.18	1.7
MAR 24...	10	109	--	1.8	.550	E1.40	--	--	1.7
MAY 27...	12	119	.020	1.2	.110	E.35	--	.09	3.9

DATE	TIME	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BERYL-LIUM, TOTAL RECOV-ERABLE (UG/L AS BE)	BORON, TOTAL RECOV-ERABLE (UG/L AS B)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)
MAY 27...	1140	100	1	<10	10	1	10	4

DATE	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	SELE-NIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	PHENOLS (UG/L)
MAY 27...	1800	4	260	.2	7	<1	10	11

01464592 ASSISCUNK CREEK NEAR COLUMBUS, NJ

LOCATION.--Lat 40°03'13", long 74°44'34", Burlington County, Hydrologic Unit 02040201, at bridge on Petticoat Bridge Road, 0.1 mi (0.2 km) downstream from Assiscunk Branch, 1.7 mi (2.7 km) southwest of Columbus, and 4.0 mi (6.4 km) northeast of Mount Holly.

DRAINAGE AREA.--10.9 mi (28.2 km²).

WATER-QUALITY RECORDS

PERIOD OF RECORD.--January 1981 to May 1982 (discontinued).

COOPERATION.--Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	STREPTOCOCCI FECAL (MPN)	HARDNESS (MG/L AS CACO3)
JAN 20...	1145	9.2	176	6.2	.0	9.6	1.1	<2	8	52
MAR 24...	1125	6.7	169	6.4	8.5	10.9	--	<2	8	54
MAY 27...	1320	4.8	170	6.5	19.5	6.9	>1.0	1600	350	55

DATE	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
JAN 20...	13	4.8	4.8	3.8	4.0	--	42	12	.2
MAR 24...	13	5.3	5.5	4.0	6.0	--	42	13	.3
MAY 27...	14	4.9	4.8	4.3	10	<.5	35	12	.3

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
JAN 20...	15	118	--	1.1	--	.28	1.4	.12	1.3
MAR 24...	14	111	<.010	.90	<.050	E.54	--	.15	1.8
MAY 27...	16	126	.030	.70	.300	E.70	--	.25	5.0

DATE	TIME	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)
MAY 27...	1320	10	2	<10	20	1	10	3

DATE	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	PHENOLS (UG/L)
MAY 27...	4600	6	260	1.8	4	<1	20	12

01464590 ASSISCUNK CREEK NEAR BURLINGTON, NJ

LOCATION.--Lat 40°04'19", long 74°47'57", Burlington County, Hydrologic Unit 02040201, at bridge on Old York Road, 1.4 mi (2.3 km) southwest of Bustleton, 2.8 mi (4.5 km) northeast of Deacons, 3.2 mi (5.1 km) east of Burlington, and 4.2 mi (6.8 km) upstream from mouth.

DRAINAGE AREA.--37.4 mi² (96.9 km²).

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976 to current year.

COOPERATION.--Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	STREPTOCOCCI FECAL (MPN)	HARDNESS (MG/L AS CACO3)
JAN 20...	0920	188	6.0	.0	8.1	.4	2	5	59
MAR 24...	0955	171	6.8	7.0	11.4	--	630	8	56
JUN 03...	1310	167	6.8	19.5	8.0	1.4	1300	540	53
JUL 14...	1045	175	7.1	23.0	6.2	2.7	800	1700	56
AUG 04...	1330	168	6.8	23.0	6.9	1.5	1700	490	57
SEP 27...	1345	166	6.9	18.0	8.1	1.5	92000	>24000	50

DATE	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
JAN 20...	14	5.8	7.3	3.6	7.0	--	41	17	.2
MAR 24...	13	5.6	6.7	3.5	8.0	--	40	15	.2
JUN 03...	13	5.1	5.0	3.5	12	--	35	10	.2
JUL 14...	13	5.6	6.0	4.2	10	--	30	15	.3
AUG 04...	14	5.3	6.5	3.7	14	--	33	12	.3
SEP 27...	12	4.9	7.5	5.5	7.0	.9	32	16	.3

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
JAN 20...	15	129	--	1.4	--	.32	1.7	.52	1.2
MAR 24...	12	114	.010	1.0	.070	E.57	--	.12	2.2
JUN 03...	15	106	.030	1.2	.100	.65	1.8	.28	6.1
JUL 14...	13	116	.020	.80	.180	.48	1.3	.28	5.0
AUG 04...	17	124	.010	.80	.050	.55	1.3	.45	5.8
SEP 27...	11	108	.010	.70	E.050	.44	1.1	.28	5.3

01464590 ASSISCUNK CREEK NEAR BURLINGTON, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	NITROGEN, NH4 + ORG. TOT IN BOT MAT (MG/KG AS N)	CARBON, INORGANIC, TOT IN BOT MAT (G/KG AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (G/KG AS C)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)
SEP											
27...	1345	1200	.1	8.4	20	2	<1	<10	40	1	<1

DATE	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)
SEP											
27...	10	4	10	5	5	2400	4800	8	40	90	70

DATE	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, RECOV. FM BOTTOM MATERIAL (UG/G AS NI)	SELENIUM, TOTAL (UG/L AS SE)	SELENIUM, TOTAL IN BOTTOM MATERIAL (UG/G)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	PHENOLS (UG/L)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	PCN, TOTAL IN BOTTOM MATERIAL (UG/KG)
SEP											
27...	<.1	<.01	4	<10	<1	<1	10	28	<1	<1	<1.0

DATE	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIAZINON, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ETHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)
SEP											
27...	1.7	8.0	33	96	1.0	<.1	<.1	<.1	<.1	<.1	<.1

DATE	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	MALATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARATHION, TOT. IN BOTTOM MATL. (UG/KG)	METHYL TRITHION, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	PARATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	PERTHANE IN BOTTOM MATERIL (UG/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)	TRITHION, TOTAL IN BOTTOM MATERIAL (UG/KG)
SEP											
27...	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<1.00	<10	<.1

01464598 DELAWARE RIVER AT BURLINGTON, NJ

LOCATION.--Lat 40°04'42", long 74°52'28", Burlington County, Hydrologic Unit 02040201, on left bank at the intake canal of the Public Service Electric and Gas Company, 0.3 mi (0.5 km) downstream from Burlington-Bristol Bridge, 1.4 mi (2.3 km) downstream from Assiscunk Creek, and at channel mile 117.54 (189.12 km), revised.

DRAINAGE AREA.--7,160 mi² (18,540 km²).

PERIOD OF RECORD.--
TIDE ELEVATIONS: July 1964 to current year. March 1921 to July 1926, January 1931 to November 1939, August 1951 to June 1954, July 1957 to June 1964, in files of Philadelphia District Corps of Engineers.

REVISED RECORDS.--WDR NJ-76-1: 1973(m).

GAGE.--Water-stage recorder. Datum of gage is -12.90 ft (-3.932 m) National Geodetic Vertical Datum of 1929. Prior to May 20, 1971, water-stage recorder at site 0.7 mi (1.1 km) upstream at same datum. Gage-height record converted to elevation above or below (-) National Geodetic Vertical Datum of 1929 for publication.

REMARKS.--Summaries for months with short periods of no gage-height record have been estimated with negligible or no loss of accuracy unless otherwise noted. Some periods cannot be estimated and are noted by dash (--) lines.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 8.74 ft (2.664 m) Oct. 25, 1980; minimum, -6.60 ft (-2.012 m) Feb. 26, 1967.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum elevation known, 10.8 ft (3.29 m) Aug. 20, 1955, from high-water mark at site 1.4 mi (2.3 km) upstream; minimum, -9.1 ft (-2.77 m) Dec. 31, 1962, at present site.

EXTREMES FOR CURRENT YEAR.--Maximum elevation recorded, 7.19 ft (2.192 m) Jan. 5; minimum recorded, -5.57 ft (-1.698 m) Apr. 7.

Summaries of tide elevations during current year are as follows:

TIDE ELEVATIONS, IN FEET, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

		OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
Maximum	Elevation	6.14	6.51	5.91	7.19	6.16	6.01	6.82	6.22	6.92	6.40	6.10	6.13
high tide	Date	18	15	27	5	6	26	3	25	20	22	5	22
Minimum	Elevation	-3.71	-3.55	-4.26	--	-3.81	-3.77	-5.57	-3.49	-3.05	-3.19	-3.40	-3.15
low tide	Date	8	22	6	--	27	28	7	9	23	20	20	4
Mean high tide		4.68	4.71	4.32	--	4.77	4.83	4.96	5.27	5.85	5.31	5.13	5.13
Mean water level		1.19	1.24	0.87	--	1.26	1.34	1.37	1.52	2.12	1.52	1.40	1.51
Mean low tide		-2.51	-2.46	-2.81	--	-2.40	-2.35	-2.36	-2.49	-1.85	-2.52	-2.57	-2.37

NOTE.--Missing or doubtful record on Jan. 5, Jan. 8-31.

01465835 SOUTH BRANCH RANCOCAS CREEK AT RETREAT, NJ

LOCATION.--Lat 39°55'23", long 74°43'05", Burlington County, Hydrologic Unit 02040202, at bridge on light-duty road in Retreat, 40 ft (12.2 m) upstream of Friendship Creek, 1.2 mi (1.9 km) southwest of Buddtown, and 1.8 mi (2.9 km) northeast of Beaverville.

DRAINAGE AREA.--44.1 mi² (114.2 km²).

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1975 to June 1982 (discontinued).

COOPERATION.--Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	STREP-TOCOCCI FECAL (MPN)	HARD-NESS (MG/L AS CACO3)
JAN										
21...	1225	53	84	4.2	.0	10.7	.5	2	10	11
MAR										
25...	1055	40	87	4.3	11.0	10.5	.6	<2	<2	11
JUN										
07...	1215	57	57	4.4	18.5	6.3	3.2	23	94	8

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
JAN									
21...	2.6	1.2	2.8	1.0	1.0	--	17	5.6	<.1
MAR									
25...	2.6	1.1	3.2	.8	<1.0	--	14	4.7	.1
JUN									
07...	1.9	.9	2.3	.8	<1.0	<.5	11	4.9	<.1

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
JAN									
21...	6.1	55	--	.30	--	.28	.58	.09	7.5
MAR									
25...	3.4	38	<.010	.20	<.050	E.25	--	.12	6.5
JUN									
07...	4.6	44	<.010	.06	.130	.86	.92	.18	12

01465835 SOUTH BRANCH RANCOCAS CREEK AT RETREAT, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)
JUN								
07...	1215	300	1	<10	60	1	10	5

DATE	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	PHENOLS (UG/L)
JUN								
07...	2300	10	30	.3	6	<1	20	6

01465850 SOUTH BRANCH RANCOCAS CREEK AT VINCENTOWN, NJ

LOCATION.--Lat 39°56'22", long 74°45'50", Burlington County, Hydrologic Unit 02040202, at bridge on Lumberton-Vincentown Road at Vincentown, 2.9 mi (4.7 km) southeast of Lumberton, and 3.1 mi (5.0 km) upstream from Southwest Branch.

DRAINAGE AREA.--64.5 mi^2 (167.1 km^2).

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1925, 1959-62, 1975 to current year.

COOPERATION.--Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	STREP-TOCOCCI FECAL (MPN)	HARD-NESS (MG/L AS CACO3)
JAN 21...	0935	64	77	5.4	.0	10.3	1.2	900	24	20
MAR 25...	0925	56	92	6.1	9.5	10.3	.9	49	17	23
JUN 07...	1025	63	58	5.9	18.5	7.1	2.2	79	920	18
JUL 14...	1245	33	62	6.0	25.5	5.8	1.1	<20	1300	16
AUG 04...	1045	24	76	6.5	24.0	5.9	3.8	50	490	21
SEP 27...	1110	34	73	6.6	18.5	7.5	2.1	33	540	20

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
JAN 21...	5.7	1.5	3.2	1.2	2.0	--	20	6.7	<.1
MAR 25...	6.6	1.7	4.2	1.2	4.0	--	18	6.6	<.1
JUN 07...	4.9	1.3	3.1	1.1	5.0	<.5	13	6.1	<.1
JUL 14...	4.6	1.2	4.3	.7	1.0	--	12	6.3	<.1
AUG 04...	6.5	1.2	5.0	1.3	9.0	--	14	6.6	<.1
SEP 27...	5.9	1.3	4.0	1.9	2.0	--	14	6.4	.1

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
JAN 21...	6.6	59	--	.50	--	.32	.82	.09	6.8
MAR 25...	3.8	59	<.010	.40	.070	E.50	--	.15	6.7
JUN 07...	5.5	64	<.010	.26	.120	.83	1.1	.34	13
JUL 14...	6.0	60	.010	.20	.240	.98	1.2	.52	15
AUG 04...	5.8	68	<.010	.40	.070	.77	1.2	.44	12
SEP 27...	4.4	59	<.010	.10	E.050	.46	.56	.21	5.8

01465850 SOUTH BRANCH RANCOCAS CREEK AT VINCENTOWN, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)
JUN								
07...	1025	210	2	<10	70	1	20	10

DATE	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	PHENOLS (UG/L)
JUN								
07...	2300	7	30	.2	19	<1	20	13

01465970 NORTH BRANCH RANCOCAS CREEK AT BROWNS MILLS, NJ

LOCATION.--Lat 39°58'04", long 74°34'48", Burlington County, Hydrologic Unit 02040202, at bridge on Lakehurst Road at outflow of Mirror Lake in Browns Mills, 1.5 mi (2.4 km) north of Browns Mills Junction, and 2.0 mi (3.2 km) northwest of outflow of Country Lake.

DRAINAGE AREA.--27.4 mi^2 (71.0 km^2).

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1975 to current year.

COOPERATION.--Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	STREP-TOCOCCI FECAL (MPN)	HARD-NESS (MG/L AS CACO3)
JAN										
26...	1040	47	65	4.6	2.0	11.6	.7	<2	2	11
MAR										
23...	1350	33	36	4.8	9.5	10.7	1.0	<2	<2	10
JUN										
03...	0910	62	41	5.0	20.5	7.6	1.3	79	<2	9
JUL										
13...	1045	35	39	5.3	25.5	5.8	1.2	<200	<200	8
AUG										
11...	1030	24	38	5.6	25.5	6.6	1.3	5	<20	9
SEP										
21...	1035	18	38	6.2	20.5	7.9	.4	17	175	0

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
JAN									
26...	2.5	1.2	3.7	.8	<1.0	--	14	5.5	<.1
MAR									
23...	2.4	1.0	3.3	.9	1.0	--	13	4.3	<.1
JUN									
03...	2.1	1.0	2.3	.7	4.0	--	9.0	3.9	<.1
JUL									
13...	1.9	.9	2.4	.2	3.0	--	8.0	4.6	<.1
AUG									
11...	2.1	.9	2.4	.4	3.0	--	8.0	4.0	<.1
SEP									
21...	2.2	1.0	2.8	.6	5.0	<.5	8.0	4.6	<.1

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	LIDS, ESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
JAN									
26...	4.8	40	--	.10	--	.35	.45	.06	3.9
MAR									
23...	3.1	33	<.010	<.10	<.050	E.57	--	<.06	2.6
JUN									
03...	3.0	30	<.010	<.10	.100	.45	--	.09	16
JUL									
13...	2.5	41	<.010	<.10	.070	.39	--	.12	8.0
AUG									
11...	1.4	31	<.010	<.10	.090	.51	--	.15	7.2
SEP									
21...	1.2	43	.010	<.10	.090	.39	--	.12	3.6

01465970 NORTH BRANCH RANCOCAS CREEK AT BROWNS MILLS, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)
SEP								
21...	1035	30	2	<10	10	<1	10	6

DATE	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	PHENOLS (UG/L)
SEP								
21...	1800	8	10	.2	1	<1	10	1

01466500 MCDONALDS BRANCH IN LEBANON STATE FOREST, NJ
(Hydrologic bench-mark station)

LOCATION.--Lat 39°53'05", long 74°30'20", Burlington County, Hydrologic Unit 02040202, on right bank in Lebanon State Forest, 25 ft (7.6 m) upstream from Butterworth Road Bridge, 3.4 mi (5.5 km) upstream from confluence with Cooper Branch, and 7.0 mi (11.3 km) southeast of Browns Mills.

DRAINAGE AREA.--2.35 mi^2 (6.09 km^2), revised.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1953 to current year. Prior to October 1962, published as "McDonald Branch in Lebanon State Forest".

GAGE.--Water-stage recorder and concrete control. Datum of gage is 117.73 ft (35.884 m) National Geodetic Vertical Datum of 1929 (levels from New Jersey Geological Survey bench mark).

REMARKS.--Water-discharge records good except those for January, which are fair. Gage-height record is collected above concrete control and discharge record, which includes leakage around control, is at site 785 ft (239 m) downstream.

AVERAGE DISCHARGE.--29 years, 2.30 ft^3/s (0.065 m^3/s), 13.52 in/yr (343 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 35 ft^3/s (0.991 m^3/s) Aug. 25, 1958, gage height, 2.33 ft (0.710 m); minimum daily, 0.8 ft^3/s (0.023 m^3/s) July 6, 19, 1967.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 6.5 ft^3/s (0.18 m^3/s) Apr. 28, gage height, 1.67 ft (0.509 m), no peak above base of 7.0 ft^3/s (0.198 m^3/s); minimum, 0.90 ft^3/s (0.025 m^3/s) Oct. 17, 21, 22, 23, gage height, 1.15 ft (0.351 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.99	1.0	1.0	1.4	1.8	1.5	1.6	2.6	2.2	2.7	1.4	1.1
2	1.0	1.0	1.2	1.4	2.0	1.5	1.4	2.3	2.0	2.5	1.3	1.1
3	.99	.99	1.1	1.3	2.7	1.5	1.5	2.2	1.9	2.3	1.3	1.2
4	.98	.97	1.0	2.1	3.8	1.5	1.6	2.1	1.8	2.3	1.3	1.1
5	.98	.97	1.0	2.3	3.0	1.6	1.5	2.1	1.9	2.2	1.4	1.1
6	.97	1.0	1.0	2.9	2.5	1.7	1.9	2.0	1.9	2.0	1.5	1.1
7	.96	1.0	1.0	2.4	2.2	2.1	1.8	2.0	1.9	1.9	1.4	1.0
8	.95	.98	1.0	2.0	2.2	2.3	1.6	1.9	1.8	1.9	1.3	1.0
9	.95	.97	1.0	1.9	2.1	2.6	1.8	1.9	1.6	1.9	1.3	1.0
10	.95	.97	1.0	1.7	1.9	2.4	1.9	1.9	1.6	1.8	1.3	1.0
11	.96	.97	.99	1.6	1.9	2.2	1.8	1.8	1.6	1.8	1.3	1.0
12	.95	.97	.97	1.5	1.9	2.2	1.7	1.8	1.5	1.8	1.3	1.0
13	.95	.97	.97	1.6	1.9	2.0	1.6	1.8	2.0	1.6	1.3	1.0
14	.94	.96	.99	1.8	1.9	1.9	1.6	1.7	3.4	1.6	1.2	1.0
15	.94	.96	1.8	1.7	1.8	1.8	1.6	1.7	3.6	1.6	1.2	1.0
16	.94	1.0	1.7	1.6	1.8	1.8	1.5	1.6	3.0	1.6	1.2	1.0
17	.93	1.0	1.5	1.5	1.8	1.9	1.5	1.6	4.2	1.6	1.2	.99
18	.95	1.1	1.4	1.5	1.7	1.8	2.0	1.5	4.2	1.5	1.2	.99
19	.99	1.0	1.5	1.5	1.8	1.8	1.8	1.5	3.0	1.5	1.2	.99
20	.96	1.0	1.5	1.6	1.9	1.7	1.6	1.5	2.6	1.4	1.1	1.1
21	.93	1.0	1.4	1.5	1.9	1.7	1.6	1.6	2.4	1.4	1.1	1.1
22	.92	.97	1.3	1.5	1.8	1.6	1.5	1.7	2.2	1.4	1.1	1.1
23	.95	.97	1.3	2.0	1.7	1.6	1.5	1.9	2.2	1.4	1.2	1.0
24	.99	.97	1.3	2.9	1.7	1.6	1.4	1.9	2.1	1.4	1.2	1.0
25	1.0	.97	1.3	2.4	1.6	1.6	1.4	2.6	1.9	1.4	1.4	.99
26	1.3	.97	1.3	1.9	1.6	1.6	1.7	2.4	1.9	1.3	1.3	1.0
27	1.1	.97	1.3	1.6	1.6	1.5	2.3	2.0	1.9	1.3	1.2	1.1
28	1.2	.97	1.3	1.5	1.6	1.5	4.8	2.2	2.1	1.7	1.2	1.0
29	1.1	.96	1.3	1.5	---	1.5	5.2	2.4	2.8	1.8	1.1	1.0
30	1.1	.94	1.3	1.6	---	1.5	3.2	2.1	3.3	1.6	1.1	1.0
31	1.0	---	1.2	1.7	---	1.5	---	2.2	---	1.5	1.1	---
TOTAL	30.82	29.47	37.52	55.4	56.1	55.0	57.9	60.5	70.5	53.7	38.7	31.06
MEAN	.99	.98	1.21	1.79	2.00	1.77	1.93	1.95	2.35	1.73	1.25	1.04
MAX	1.3	1.1	1.7	2.9	3.8	2.6	5.2	2.6	4.2	2.7	1.5	1.2
MIN	.92	.94	.97	1.3	1.6	1.5	1.4	1.5	1.5	1.3	1.1	.99
CFSM	.42	.42	.52	.76	.85	.75	.82	.83	1.00	.74	.53	.44
IN.	.49	.47	.59	.88	.89	.87	.92	.96	1.12	.85	.61	.49

CAL YR 1981 TOTAL 481.57 MEAN 1.32 MAX 3.9 MIN .89 CFSM .56 IN 7.62
WTR YR 1982 TOTAL 576.67 MEAN 1.58 MAX 5.2 MIN .92 CFSM .67 IN 9.12

01466500 MCDONALDS BRANCH IN LEBANON STATE FOREST, NJ--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1963 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1968 to current year.
WATER TEMPERATURES: October 1960 to current year.

INSTRUMENTATION.--Temperature recorder since October 1960, water-quality monitor since October 1968.

REMARKS.--Interruptions in the record were due to malfunctions of the instrument.

EXTREMES FOR PERIOD OF DAILY RECORDS.--
SPECIFIC CONDUCTANCE: Maximum, 182 micromhos June 16, 1969; minimum, 19 micromhos Aug. 25, 1979.
WATER TEMEPRATURES: Maximum, 22.0°C Aug. 1, 1970; minimum, 0.0°C on many days during winter months.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 104 micromhos Jan. 6; minimum, 25 micromhos Oct. 9, 18.
WATER TEMPERATURES: Maximum, 17.5°C June 18, 30 and July 21; minimum, 1.5°C Feb. 4, 5.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)
NOV												
12...	1130	.97	31	4.8	9.0	3.1	1.7	<1	39	4	.7	.6
JAN												
26...	1345	1.9	60	4.2	4.0	7.7	.3	K2	80	4	.8	.6
MAR												
09...	1200	2.7	87	4.0	3.0	9.6	.3	K1	140	7	1.2	.9
MAY												
20...	1100	1.5	47	4.3	13.5	2.8	--	<4	88	3	.5	.4
JUL												
01...	1045	2.8	62	4.1	16.5	2.2	--	39	180	3	.6	.4
SEP												
09...	1330	1.0	28	4.6	13.5	3.2	.3	<2	780	2	.3	.3

DATE	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)
NOV												
12...	2.3	.6	<1.0	8.2	4.4	<.1	5.9	26	1	.00	100	.02
JAN												
26...	1.8	.4	<1.0	7.8	3.3	<.1	3.9	27	1	.00	100	.10
MAR												
09...	1.7	.5	<1.0	11	3.8	<.1	3.2	38	1	.00	100	.11
MAY												
20...	1.6	.2	<1.0	7.0	3.6	<.1	3.3	25	1	.00	100	<.10
JUL												
01...	1.5	<.1	<1.0	7.0	3.4	<.1	2.6	40	3	.02	100	<.10
SEP												
09...	1.8	<.1	1.0	2.0	3.3	<.1	4.1	7	3	.00	100	<.10

DATE	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C)
NOV												
12...	.02	.020	.020	<.10	<.10	--	--	,020	.020	--	1.0	.1
JAN												
26...	.06	.050	<.010	.28	.11	.38	.17	.010	<.010	2.2	--	--
MAR												
09...	.11	.030	<.010	.51	.11	.62	.22	.010	<.010	--	6.5	.1
MAY												
20...	<.10	.020	<.010	.38	.23	--	--	<.010	<.010	5.2	--	--
JUL												
01...	<.10	.020	.020	.40	.20	--	--	.010	.010	--	13	.1
SEP												
09...	<.10	.010	<.010	.30	.30	--	--	<.010	<.010	2.0	--	--

01466500 MCDONALDS BRANCH IN LEBANON STATE FOREST, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	ARSENIC TOTAL (UG/L AS AS)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA)	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)
NOV											
12...	1130	--	--	--	--	--	--	--	--	--	--
MAR											
09...	1200	2	2	<100	30	<1	1	1	10	10	<3
MAY											
20...	1100	--	--	--	--	--	--	--	--	--	--
JUL											
01...	1045	1	<1	<100	20	<1	1	<1	10	1	<3

DATE	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	LEAD, DIS-SOLVED (UG/L AS PB)	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	MERCURY DIS-SOLVED (UG/L AS HG)
NOV											
12...	--	--	--	--	--	--	--	--	--	--	--
MAR											
09...	8	<10	190	130	6	<10	<4	40	39	<.1	<.1
MAY											
20...	--	--	--	--	--	--	--	--	--	--	--
JUL											
01...	12	<10	410	340	4	<10	<4	40	14	.1	.1

DATE	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	SELE-NIUM, TOTAL (UG/L AS SE)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG)	SILVER, DIS-SOLVED (UG/L AS AG)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, DIS-SOLVED (UG/L AS ZN)	GROSS ALPHA, DIS-SOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)
NOV											
12...	--	--	--	--	--	--	--	--	--	--	--
MAR											
09...	<10	<1	<1	<1	<1	14	<6.0	60	40	--	--
MAY											
20...	--	--	--	--	--	--	--	--	--	1.9	<.4
JUL											
01...	10	<1	<1	<1	<1	8	<6.0	40	25	--	--

DATE	GROSS ALPHA, DIS-SOLVED (PCI/L AS U-NAT)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	GROSS BETA, DIS-SOLVED (PCI/L AS SR/YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90)	RADIUM 226, DIS-SOLVED, RADON METHOD (PCI/L)	URANIUM DIS-SOLVED, EXTRAC-TION (UG/L)	CYANIDE TOTAL (MG/L AS CN)	PCB, TOTAL (UG/L)	PCB, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	NAPH-THA-LENES, POLY-CHLOR. TOTAL (UG/L)
NOV											
12...	--	--	--	--	--	--	--	--	--	8	--
MAR											
09...	--	--	--	--	--	--	--	<.01	--	--	--
MAY											
20...	1.3	1.6	<.4	1.5	<.4	2.9	.01	--	<.10	--	<.10
JUL											
01...	--	--	--	--	--	--	--	<.01	--	--	--

DATE	PCN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	ALDRIN, TOTAL (UG/L)	ALDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	CHLOR-DANE, TOTAL (UG/L)	CHLOR-DANE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDD, TOTAL (UG/L)	DDD, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDE, TOTAL (UG/L)	DDE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDT, TOTAL (UG/L)	DDT, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)
NOV											
12...	<1.0	--	<.1	--	15	--	35	--	23	--	15
MAR											
09...	--	--	--	--	--	--	--	--	--	--	--
MAY											
20...	--	<.01	--	<.10	--	<.01	--	<.01	--	<.01	--
JUL											
01...	--	--	--	--	--	--	--	--	--	--	--

01466500 MCDONALDS BRANCH IN LEBANON STATE FOREST, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	DI-AZINON, TOTAL (UG/L)	DI-ELDRIN TOTAL (UG/L)	DI-ELDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	ENDO-SULFAN, TOTAL (UG/L)	ENDO-SULFAN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	ENDRIN, TOTAL (UG/L)	ENDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	ETHION, TOTAL (UG/L)	HEPTA-CHLOR, TOTAL (UG/L)	HEPTA-CHLOR, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	HEPTA-CHLOR EPOXIDE TOTAL (UG/L)
NOV 12...	--	--	.3	--	<.1	--	<.1	--	--	<.1	--
MAR 09...	--	--	--	--	--	--	--	--	--	--	--
MAY 20...	<.01	<.01	--	<.01	--	<.01	--	<.01	<.01	--	<.01
JUL 01...	--	--	--	--	--	--	--	--	--	--	--

DATE	HEPTA-CHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL (UG/L)	LINDANE TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	MALA-THION, TOTAL (UG/L)	METH-OXY-CHLOR, TOTAL (UG/L)	METH-OXY-CHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARA-THION, TOTAL (UG/L)	METHYL TRI-THION, TOTAL (UG/L)	MIREX, TOTAL (UG/L)	MIREX, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)
NOV 12...	<.1	--	<.1	--	--	<.1	--	--	--	<.1
MAR 09...	--	--	--	--	--	--	--	--	--	--
MAY 20...	--	<.01	--	<.01	<.01	--	<.01	<.01	<.01	--
JUL 01...	--	--	--	--	--	--	--	--	--	--

DATE	PARA-THION, TOTAL (UG/L)	PER-THANE TOTAL (UG/L)	PER-THANE IN BOTTOM MATERIL (UG/KG)	TOX-APHENE, TOTAL (UG/L)	TOXA-PHENE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	TOTAL TRI-THION (UG/L)	2,4-D, TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)
NOV 12...	--	--	<.10	--	<1.0	--	--	--	--	--
MAR 09...	--	--	--	--	--	--	--	--	--	--
MAY 20...	<.01	<.10	--	<1	--	<.01	<.01	<.01	<.01	<.01
JUL 01...	--	--	--	--	--	--	--	--	--	--

01466500 MCDONALDS BRANCH IN LEBANON STATE FOREST, NJ--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	30	29	30	39	37	38	30	26	27	50	43	47
2	30	29	30	37	36	37	35	30	34	52	50	51
3	30	29	30	36	34	35	35	32	33	52	50	51
4	30	29	29	35	33	34	32	31	31	76	50	65
5	29	28	28	34	32	33	32	31	32	97	76	82
6	28	27	28	33	32	33	32	31	32	104	98	101
7	28	26	27	33	32	32	32	31	32	100	93	96
8	28	26	28	33	31	32	31	31	31	94	87	90
9	28	25	27	32	31	31	31	30	31	87	80	83
10	28	26	27	31	30	31	31	30	30	80	75	77
11	28	27	28	30	29	29	30	29	30	74	68	71
12	27	26	26	30	26	29	30	29	29	68	63	66
13	27	26	27	29	28	29	29	28	29	63	59	61
14	27	26	27	29	28	28	30	28	28	60	57	58
15	28	26	27	29	28	29	49	32	41	57	55	56
16	27	26	27	30	29	29	65	51	58	55	54	54
17	27	26	26	31	28	29	68	64	66	54	53	54
18	28	25	26	31	30	31	64	59	62	53	51	52
19	29	26	28	31	29	30	69	60	66	52	50	51
20	29	28	29	30	29	29	69	66	68	51	49	50
21	29	28	28	30	29	29	66	60	63	50	48	49
22	29	28	28	30	28	29	61	56	58	49	48	48
23	29	28	28	29	28	29	56	54	55	59	47	52
24	30	29	29	29	28	28	54	53	53	62	59	61
25	33	29	30	29	28	28	53	51	52	62	61	61
26	44	34	41	27	26	27	52	50	51	61	58	59
27	39	36	37	27	26	27	50	48	49	58	55	57
28	40	39	39	27	26	27	48	47	48	55	52	54
29	41	40	40	27	26	27	47	46	47	53	50	51
30	41	40	41	27	26	27	46	45	45	52	49	50
31	40	38	40	---	---	---	45	43	44	52	49	50
MONTH	44	25	30	39	26	30	69	26	44	104	43	62

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	63	52	58	60	59	59	53	51	52	83	76	80
2	67	62	65	59	58	58	52	50	51	78	72	74
3	97	68	85	58	57	57	54	50	51	74	70	72
4	102	96	99	57	56	57	56	54	55	70	64	67
5	100	92	96	59	57	58	55	53	54	65	64	65
6	93	86	90	67	59	61	67	53	61	65	62	63
7	86	80	83	85	68	74	68	66	67	62	60	61
8	80	75	77	89	83	85	67	62	64	61	59	60
9	75	72	73	93	84	90	68	62	65	59	57	58
10	73	71	72	94	87	90	70	67	69	58	56	57
11	71	68	70	88	83	85	71	68	69	56	54	55
12	70	66	67	85	81	82	68	65	66	56	54	55
13	67	65	66	81	77	79	65	63	64	55	53	54
14	66	64	65	78	74	75	63	60	61	54	53	53
15	64	63	64	73	70	72	61	58	59	53	52	52
16	67	64	65	69	67	68	58	55	57	52	50	51
17	67	65	66	69	68	69	56	54	55	51	49	50
18	67	64	65	69	66	68	64	56	62	50	48	49
19	67	63	65	68	65	66	65	63	64	49	47	48
20	70	68	69	65	63	64	63	59	61	48	46	47
21	70	68	69	63	61	62	60	57	58	50	48	49
22	70	67	68	61	60	61	58	56	57	52	49	50
23	68	66	67	60	58	59	57	55	56	58	53	56
24	68	66	67	59	57	58	55	53	54	60	58	59
25	66	64	65	58	56	57	54	52	52	74	58	68
26	66	62	63	57	55	56	61	51	54	74	66	70
27	63	61	62	56	54	55	93	62	69	67	64	65
28	62	60	61	54	52	53	96	90	93	67	63	65
29	---	---	---	53	51	52	96	88	92	70	68	69
30	---	---	---	51	49	50	90	82	86	69	64	67
31	---	---	---	51	49	50	---	---	---	67	65	66
MONTH	102	52	71	94	49	65	96	50	63	83	46	60

01466500 MCDONALDS BRANCH IN LEBANON STATE FOREST, NJ--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	67	64	65	64	61	62	41	39	40	30	29	30
2	64	61	62	62	59	61	39	37	38	30	29	30
3	61	58	60	60	57	59	38	36	37	31	29	30
4	59	56	57	60	57	58	37	35	36	30	29	30
5	57	56	56	58	55	56	39	34	36	30	29	29
6	57	55	56	55	53	54	40	38	39	30	28	29
7	56	54	55	53	51	52	39	37	38	30	28	29
8	55	53	54	52	50	51	37	35	36	29	28	29
9	53	51	52	52	50	51	36	35	35	29	28	29
10	52	50	51	50	48	49	36	35	36	29	28	28
11	51	49	50	48	47	48	36	34	35	29	28	28
12	49	47	48	47	46	46	34	33	34	29	27	28
13	66	47	51	46	44	45	34	32	33	28	27	27
14	72	67	70	45	43	44	33	32	33	28	26	27
15	74	69	71	44	43	43	33	32	32	28	26	27
16	69	66	67	43	42	43	33	31	32	28	26	27
17	74	69	71	43	41	42	32	31	32	27	26	27
18	74	69	72	42	40	41	32	31	31	28	26	27
19	70	65	68	41	40	40	32	31	31	27	26	27
20	66	63	64	40	39	39	32	30	31	32	27	29
21	63	61	62	39	38	39	31	30	31	32	30	31
22	61	58	60	39	38	38	31	30	30	31	30	30
23	59	57	58	38	37	38	32	30	31	31	29	30
24	57	55	56	38	37	37	31	30	31	29	28	29
25	56	54	55	37	36	37	38	31	36	29	28	28
26	54	52	53	37	36	36	36	34	35	29	28	28
27	53	52	52	36	34	35	34	33	34	30	27	29
28	58	51	53	46	34	40	33	31	32	29	27	28
29	69	58	61	47	45	46	32	31	31	27	26	27
30	69	64	67	46	43	45	31	30	31	28	26	27
31	---	---	---	43	41	42	31	30	30	---	---	---
MONTH	74	47	59	64	34	46	41	30	34	32	26	28
YEAR	104	25	49									

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	12.5	11.5	12.0	11.5	10.5	11.0	8.0	7.0	7.5	6.5	6.5	6.5
2	12.5	11.5	12.0	11.5	10.5	11.0	8.5	8.5	8.5	6.5	6.0	6.0
3	12.0	11.5	11.5	11.5	10.5	11.0	8.5	8.0	8.0	6.5	6.0	6.0
4	12.5	11.0	11.5	11.0	10.0	10.5	8.5	8.0	8.5	6.5	6.0	6.5
5	12.5	11.5	12.0	11.0	9.5	10.5	8.5	8.0	8.5	6.0	4.5	5.5
6	12.0	11.5	12.0	11.0	10.5	11.0	8.0	7.5	7.5	4.5	4.0	4.0
7	12.0	11.5	12.0	10.5	9.5	10.0	8.0	7.5	8.0	4.5	4.0	4.5
8	12.0	11.5	11.5	10.5	9.5	10.0	8.5	8.0	8.0	4.5	4.0	4.0
9	12.5	10.5	11.0	10.5	9.5	10.0	8.0	7.5	7.5	4.0	3.5	4.0
10	11.5	10.5	11.0	10.0	9.5	10.0	7.5	7.0	7.0	3.5	2.5	3.0
11	11.5	10.0	10.5	10.0	9.5	10.0	7.5	7.0	7.0	3.0	2.5	3.0
12	11.0	10.0	10.0	9.5	9.0	9.0	7.5	7.0	7.0	3.0	3.0	3.0
13	11.0	9.5	10.0	9.0	8.5	9.0	7.0	6.5	7.0	3.5	3.0	3.0
14	11.0	9.0	10.0	9.5	9.0	9.0	7.0	6.5	6.5	4.0	3.5	3.5
15	11.0	9.5	10.0	10.0	9.5	9.5	6.5	6.0	6.5	4.0	3.5	4.0
16	11.0	9.5	10.0	10.0	9.5	10.0	6.0	5.5	6.0	4.5	3.5	4.0
17	10.5	9.5	10.0	9.5	9.0	9.5	6.0	5.5	5.5	4.0	3.0	3.5
18	11.0	9.5	10.5	10.0	9.5	10.0	6.0	5.5	5.5	4.0	3.0	3.5
19	10.5	10.0	10.5	10.0	9.5	9.5	5.5	4.5	5.0	4.5	4.0	4.0
20	10.5	9.5	10.0	10.5	9.5	10.0	4.5	4.0	4.5	5.0	4.5	5.0
21	11.0	9.5	10.5	10.0	9.5	9.5	4.5	3.5	4.0	5.0	4.5	5.0
22	11.5	10.0	10.5	9.5	9.0	9.0	5.0	4.5	5.0	4.5	4.5	4.5
23	11.5	11.0	11.0	9.0	8.5	9.0	6.0	5.0	5.5	5.0	4.5	5.0
24	11.0	10.0	10.5	8.5	7.5	8.5	6.0	5.5	5.5	5.0	4.0	4.5
25	10.5	9.5	10.0	8.5	8.0	8.0	6.0	5.5	6.0	4.0	4.0	4.0
26	11.0	10.5	11.0	8.0	7.5	8.0	6.0	5.5	5.5	4.0	3.5	3.5
27	12.0	11.0	11.5	9.0	8.0	8.5	6.5	6.0	6.5	4.0	3.5	3.5
28	12.0	11.5	11.5	8.5	8.0	8.5	6.5	6.0	6.5	4.5	3.5	4.0
29	11.5	11.0	11.5	8.5	8.0	8.5	6.5	6.5	6.5	4.5	4.0	4.5
30	11.5	11.0	11.0	8.0	7.5	7.5	6.5	6.0	6.0	5.0	4.0	4.5
31	11.0	10.5	11.0	---	---	---	6.5	5.5	6.0	5.5	5.0	5.5
MONTH	12.5	9.0	11.0	11.5	7.5	9.5	8.5	3.5	6.5	6.5	2.5	4.5

01466500 MCDONALDS BRANCH IN LEBANON STATE FOREST, NJ--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	5.5	5.0	5.5	5.0	4.0	4.5	8.5	7.5	8.0	10.5	9.5	10.0
2	4.5	4.5	4.5	5.0	4.5	5.0	8.5	8.0	8.0	11.5	10.0	10.5
3	4.5	2.5	3.5	5.0	4.5	5.0	8.5	8.0	8.0	11.5	10.5	11.0
4	2.5	1.5	2.0	5.0	4.5	5.0	8.5	7.5	8.0	11.5	10.5	11.0
5	2.0	1.5	1.5	6.0	5.0	5.5	8.0	7.0	7.5	11.5	10.5	11.0
6	2.5	2.0	2.0	5.5	5.0	5.0	7.5	6.0	6.5	11.5	10.5	11.0
7	2.5	2.0	2.0	5.0	4.0	5.0	6.0	5.0	5.5	12.0	11.5	11.5
8	3.0	2.0	2.5	4.0	3.5	4.0	6.0	5.0	5.5	12.0	11.5	11.5
9	3.5	2.5	3.0	3.0	2.5	3.0	5.5	5.0	5.5	12.0	11.5	12.0
10	3.5	3.0	3.0	2.5	2.0	2.5	6.0	5.0	5.5	12.5	11.5	12.0
11	3.5	3.0	3.0	4.0	2.5	3.5	6.0	5.0	5.5	12.5	11.5	12.0
12	3.5	3.0	3.0	5.0	4.0	4.5	6.5	5.5	6.0	12.5	11.5	12.0
13	3.5	3.5	3.5	5.5	4.5	5.0	7.0	6.0	6.5	12.5	12.0	12.0
14	4.0	3.0	3.5	6.0	5.5	5.5	8.0	6.5	7.0	12.5	12.0	12.0
15	4.5	3.5	4.0	6.0	5.5	5.5	8.0	7.0	7.5	12.5	11.5	12.0
16	5.0	4.5	5.0	6.0	5.5	6.0	8.5	7.0	8.0	12.5	11.5	12.0
17	5.0	4.5	5.0	6.0	5.5	6.0	9.5	8.5	9.0	13.0	12.5	12.5
18	4.5	4.5	4.5	6.5	5.5	6.0	10.0	9.0	9.5	13.0	12.0	12.5
19	4.5	4.5	4.5	6.5	6.0	6.5	9.5	8.5	9.0	13.5	12.5	13.0
20	5.0	4.5	4.5	7.0	6.5	6.5	10.0	9.0	9.5	13.5	13.0	13.5
21	5.0	4.5	5.0	7.0	7.0	7.0	10.5	9.5	10.0	13.5	13.0	13.5
22	5.0	5.0	5.0	7.5	7.0	7.0	10.0	9.0	9.5	13.0	12.5	13.0
23	5.0	4.5	5.0	7.5	7.0	7.0	10.0	8.5	9.0	12.5	12.5	12.5
24	5.0	5.0	5.0	7.5	6.5	7.0	10.5	9.0	9.5	12.5	12.0	12.5
25	5.0	4.0	4.5	8.0	7.0	7.5	10.5	9.5	10.0	12.5	12.0	12.5
26	4.5	4.0	4.0	8.0	7.5	7.5	10.5	10.0	10.5	13.0	12.5	13.0
27	4.5	4.0	4.5	7.5	6.5	7.0	11.0	10.5	10.5	13.5	13.0	13.5
28	5.0	4.5	4.5	7.0	6.5	6.5	11.0	9.5	10.5	13.5	13.5	13.5
29	---	---	---	7.0	6.0	6.5	9.5	8.5	9.0	14.0	13.5	13.5
30	---	---	---	7.5	6.5	7.0	10.0	9.0	9.5	14.5	13.5	14.0
31	---	---	---	8.0	7.5	7.5	---	---	---	14.5	14.0	14.5
MONTH	5.5	1.5	4.0	8.0	2.0	5.5	11.0	5.0	8.0	14.5	9.5	12.5

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	15.0	14.5	14.5	17.0	16.5	16.5	16.5	15.0	15.5	14.0	13.5	14.0
2	15.0	14.5	14.5	16.5	15.5	16.0	16.5	15.0	15.5	14.5	14.0	14.0
3	14.5	14.0	14.5	16.0	15.5	15.5	16.5	15.0	15.5	14.5	13.5	14.0
4	14.5	14.0	14.0	15.5	15.0	15.5	16.0	15.0	15.5	14.0	13.5	13.5
5	14.0	14.0	14.0	15.5	15.0	15.0	15.5	15.0	15.5	13.5	12.5	13.0
6	14.0	14.0	14.0	15.0	14.5	15.0	15.5	15.0	15.5	13.5	12.5	13.0
7	14.0	13.5	13.5	15.5	14.5	15.0	16.5	15.0	15.5	13.5	12.5	13.0
8	13.5	13.5	13.5	15.5	15.0	15.5	16.5	15.0	15.5	13.5	13.0	13.0
9	14.0	13.0	13.5	16.0	15.5	15.5	16.0	15.0	15.5	13.0	12.0	12.5
10	13.5	13.0	13.5	16.5	15.0	15.5	16.0	15.0	15.5	13.5	12.5	13.0
11	13.5	13.0	13.5	16.0	15.5	16.0	15.5	15.0	15.5	14.0	13.0	13.0
12	13.0	13.0	13.0	16.5	15.5	16.0	15.5	14.5	15.0	14.0	13.0	13.5
13	13.0	13.0	13.0	16.5	15.5	16.0	16.0	14.5	15.0	13.5	13.0	13.5
14	13.5	13.0	13.0	16.0	15.5	15.5	16.0	14.5	15.0	14.0	13.0	13.5
15	14.0	13.0	13.5	16.0	15.5	15.5	16.0	14.0	14.5	14.0	13.0	13.5
16	15.5	14.0	15.0	16.5	15.5	15.5	15.5	14.0	14.5	13.5	13.5	13.5
17	17.0	15.5	16.5	15.5	15.0	---	15.5	14.5	14.5	14.0	13.0	---
18	17.5	17.0	17.0	16.5	15.5	---	15.5	14.0	14.5	---	---	---
19	17.0	17.0	17.0	17.0	16.0	16.5	15.5	14.0	14.5	---	---	---
20	17.0	16.5	17.0	16.5	16.0	16.0	14.5	14.0	14.0	13.0	12.5	12.5
21	16.5	16.0	16.5	17.5	15.5	16.0	14.0	13.5	14.0	13.0	12.5	12.5
22	16.5	16.0	16.0	17.0	15.0	16.0	14.0	13.5	---	13.0	12.5	12.5
23	16.0	15.5	16.0	15.5	15.0	15.5	13.5	13.5	13.5	13.0	12.5	---
24	15.5	15.0	15.0	16.5	15.0	15.5	14.0	13.5	14.0	12.5	11.0	---
25	15.0	14.5	14.5	16.0	14.5	15.0	15.0	13.5	14.5	---	---	---
26	16.0	14.5	15.5	16.0	15.0	15.0	14.5	14.0	14.0	---	---	---
27	16.0	15.5	16.0	15.5	14.5	15.0	14.5	13.5	14.0	---	---	---
28	16.5	16.0	16.5	16.0	15.0	15.5	14.5	13.0	14.0	13.0	12.0	---
29	17.0	15.5	16.5	17.0	15.5	16.0	14.0	13.5	13.5	13.5	12.5	13.0
30	17.5	17.0	17.0	16.0	15.5	15.5	14.0	13.5	13.5	13.0	13.0	13.0
31	---	---	---	16.0	15.0	15.5	14.0	13.5	13.5	---	---	---
MONTH	17.5	13.0	15.0	17.5	14.5	15.5	16.5	13.0	14.5	14.5	11.0	13.0
YEAR	17.5	1.5	10.0									

01467000 NORTH BRANCH RANCOCAS CREEK AT PEMBERTON, NJ

LOCATION.--Lat 39°58'10", long 74°41'05", Burlington County, Hydrologic Unit 02040202, on right bank at downstream side of bridge on Hanover Street at Pemberton, 12 mi (19 km) upstream from confluence with South Branch.

DRAINAGE AREA.--118 mi² (306 km²), revised.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1921 to current year.

REVISED RECORDS.--WSP 1302: 1922-23. WSP 1382: 1933.

GAGE.--Water-stage recorder above concrete dams. Datum of gage is 31.19 ft (9.507 m) National Geodetic Vertical Datum of 1929. Prior to June 9, 1923, nonrecording gage and June 9, 1923 to Aug. 9, 1951, water-stage recorder at site 600 ft (183 m) downstream at datum 6.54 ft (1.993 m) lower.

REMARKS.--Water-discharge records good. Flow regulated occasionally by operation of gate in dam and by ponds above station.

AVERAGE DISCHARGE.--61 years, 171 ft³/s (4.843 m³/s), 20.92 in/yr (531 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,730 ft³/s (49.0 m³/s) Aug. 31, 1939, gage height, 10.77 ft (3.283 m) from high-water mark at site and datum then in use; minimum daily, 9.0 ft³/s (0.25 m³/s) Sept. 29, 1932.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 474 ft³/s (13.4 m³/s) Apr. 28, gage height 2.25 ft (0.686 m), no peak above base of 600 ft³/s (17.0 m³/s); minimum, 47 ft³/s (1.33 m³/s) Sept. 9, 10, gage height, 1.48 ft (0.451 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	50	91	79	118	211	127	154	300	222	327	87	58
2	57	86	132	150	224	127	138	273	183	250	77	58
3	56	83	145	155	346	130	132	238	153	194	70	71
4	53	80	137	213	400	124	172	213	132	194	66	66
5	52	79	133	384	341	129	162	181	128	188	68	61
6	53	104	120	363	282	135	202	159	133	165	92	57
7	54	104	109	170	253	185	233	153	136	132	88	54
8	50	91	111	261	217	244	220	133	130	122	77	52
9	49	84	119	236	201	242	207	122	119	130	76	51
10	50	80	103	207	206	213	207	119	109	119	77	49
11	52	76	90	207	197	191	199	116	100	99	75	49
12	52	74	86	150	181	188	181	148	96	90	76	49
13	55	72	83	150	165	195	157	165	125	85	73	49
14	59	70	80	155	155	183	139	129	296	81	68	49
15	56	90	164	150	150	161	128	111	382	79	63	49
16	54	100	274	136	146	148	123	101	339	95	60	52
17	53	88	348	131	145	160	117	96	313	91	58	51
18	63	106	293	131	141	174	187	93	278	84	58	49
19	79	106	248	136	148	160	164	87	224	74	58	49
20	75	104	207	150	159	143	140	86	191	70	57	56
21	82	103	175	122	162	143	129	92	169	72	58	65
22	72	93	150	118	163	136	120	96	151	68	57	66
23	66	88	136	114	161	131	112	107	137	65	61	73
24	79	84	136	196	155	144	108	117	121	67	69	66
25	77	83	131	220	146	145	101	144	109	63	76	59
26	118	91	122	198	134	154	120	162	105	58	83	55
27	126	94	118	175	127	145	204	168	84	58	74	71
28	169	86	118	155	126	121	463	211	85	81	70	68
29	160	80	118	140	---	113	403	415	104	105	62	64
30	121	75	118	134	---	120	326	374	290	113	58	69
31	99	---	105	150	---	133	---	286	---	99	58	---
TOTAL	2291	2645	4488	5475	5442	4844	5448	5195	5144	3518	2150	1735
MEAN	73.9	88.2	145	177	194	156	182	168	171	113	69.4	57.8
MAX	169	106	348	384	400	244	463	415	382	327	92	73
MIN	49	70	79	114	126	113	101	86	84	58	57	49
CFSM	.63	.75	1.23	1.50	1.64	1.32	1.54	1.42	1.45	.96	.59	.49
IN.	.72	.83	1.41	1.73	1.72	1.53	1.72	1.64	1.62	1.11	.68	.55

CAL YR 1981 TOTAL 40213 MEAN 110 MAX 433 MIN 49 CFSM .93 IN 12.68
WTR YR 1982 TOTAL 48375 MEAN 133 MAX 463 MIN 49 CFSM 1.13 IN 15.25

01467000 NORTH BRANCH RANCOCAS CREEK AT PEMBERTON, NJ--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1923-24, 1958, 1962-69, 1975 to current year.

COOPERATION.--Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	STREP-TOCOCCI FECAL (MPN)	HARD-NESS (MG/L AS CACO3)
JAN 26...	1310	202	72	4.3	.0	12.6	.7	2	12	9
MAR 25...	1310	145	64	4.4	10.0	10.9	.7	2	2	8
JUN 03...	1045	155	51	4.5	20.0	7.0	1.2	33	>2400	7
JUL 13...	1245	87	44	5.1	25.0	6.1	1.0	500	540	8
AUG 11...	1230	76	40	5.1	24.5	6.2	<.9	<20	<200	7
SEP 21...	1300	64	40	5.5	17.0	8.0	.6	170	920	8

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
JAN 26...	2.1	.8	3.2	.8	1.0	--	13	5.6	<.1
MAR 25...	1.9	.8	3.2	.6	<1.0	--	10	4.6	.2
JUN 03...	1.7	.7	2.4	.5	2.0	<.5	9.0	4.6	<.1
JUL 13...	1.9	.8	2.8	.4	2.0	--	8.0	5.0	<.1
AUG 11...	1.7	.7	2.7	.4	2.0	--	6.0	4.5	<.1
SEP 21...	2.0	.9	3.1	.8	3.0	<.5	8.0	4.9	<.1

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
JAN 26...	4.9	42	--	.10	--	.18	.28	.06	7.0
MAR 25...	3.6	29	<.010	<.10	.170	E.25	--	.09	4.5
JUN 03...	3.9	33	.010	<.10	.050	.35	--	.12	8.9
JUL 13...	4.2	44	<.010	.10	.070	.42	.52	.18	8.7
AUG 11...	3.9	36	.010	<.10	.090	.45	--	.18	8.5
SEP 21...	3.8	41	<.010	<.10	.130	.42	--	.12	3.0

01467000 NORTH BRANCH RANCOCAS CREEK AT PEMBERTON, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)
JUN								
03...	1045	230	1	<10	30	<1	10	6
SEP								
21...	1300	80	1	<10	20	<1	10	6

DATE	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	PHENOLS (UG/L)
JUN								
03...	1900	25	40	.2	2	<1	30	15
SEP								
21...	1700	7	30	.3	3	<1	10	<1

01467060 DELAWARE RIVER AT PALMYRA, NJ

LOCATION.--Lat 40°01'05", long 75°02'16", Philadelphia County, PA, Hydrologic Unit 02040202, on right bank opposite Palmyra, 0.5 mi (0.8 km) upstream from Tacony-Palmyra Bridge, 3.5 mi (5.6 km) downstream from Rancocas Creek, and at channel mile 107.55 (173.05 km), revised.

DRAINAGE AREA.--7,850 mi^2 (20,330 km^2).

PERIOD OF RECORD.--December 1962 to current year. Tidal volumes published from December 1962 to September 1970.

GAGE.--Water-stage recorder. Datum of gage is -10.00 ft (-3.048 m) National Geodetic Vertical Datum of 1929. Gage-height record converted to elevation above or below (-) National Geodetic Vertical Datum of 1929 for publication.

REMARKS.--Some periods of low tide are affected by sluggish or plugged intake and the record is estimated with negligible loss in accuracy. Some periods cannot be estimated and are noted by dash (--) lines.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 8.23 ft (2.508 m) Oct. 25, 1980; minimum, -8.6 ft (-2.6 m) Dec. 31, 1962.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum elevation known since 1899, 8.9 ft (2.7 m) Aug. 24, 1933, from profile furnished by Corps of Engineers, U.S. Army.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, a6.5 ft (1.981 m) Jan. 5, maximum elevation recorded, 6.26 ft (1.908 m) Apr. 3; minimum recorded, a-5.60 ft (-1.707 m) Apr. 7.

Summaries of tide elevations during current year are as follows:

TIDE ELEVATIONS, IN FEET, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

		OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
Maximum	Elevation	5.59	5.91	--	a6.5	--	5.43	6.26	5.63	--	--	5.63	5.70
high tide	Date	18	15	--	a5	--	7	3	25	--	--	5	22
Minimum	Elevation	-3.40	-3.30	--	--	-3.20	-3.20	a-5.60	-3.10	--	--	-3.10	-3.00
low tide	Date	20	7	--	--	8	8	7	9	--	--	20,21	4
Mean high tide		4.08	4.06	--	--	--	4.24	4.23	4.51	--	--	4.54	4.53
Mean water level		1.10	1.10	--	--	--	1.10	1.10	1.30	--	--	1.30	1.40
Mean low tide		-2.30	-2.30	--	--	--	-2.20	-2.30	-2.40	--	--	-2.40	-2.20

a - Estimated by comparison with Delaware River at Burlington, NJ (sta 01464598) and Delaware River at Delaware Memorial Bridge, Wilmington, DE (sta 01482100).

NOTE.--Missing or doubtful record on Dec. 6-Jan. 6, Jan. 12-Feb. 5, Feb. 18-28, May 26-June 1, June 9-Aug. 4.

01467069 NORTH BRANCH PENNSAUKEN CREEK NEAR MOORESTOWN, NJ

LOCATION.--Lat 39°57'07", long 74°58'10", Burlington County, Hydrologic Unit 02040202, at bridge on Kings Highway, 200 ft (61 m) downstream from outlet of Strawbridge Lake, 0.6 mi (1.0 km) northwest of Moorestown Mall, 0.8 mi (1.3 km) southeast of Lenola, and 1.8 mi (2.9 km) southwest of Moorestown.

DRAINAGE AREA.--12.8 mi² (33.1 km²).

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976 to current year.

COOPERATION.--Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	STREP-TOCOCCI FECAL (MPN)	HARD-NESS (MG/L AS CACO3)
OCT										
20...	1230	1.5	247	7.1	10.5	8.0	6.2	1600	1600	62
FEB										
01...	1100	7.0	314	6.5	1.5	11.8	7.8	350	>2400	46
MAR										
24...	1130	2.8	328	6.7	10.5	10.2	--	50	<2	85
JUN										
23...	1415	2.3	281	6.7	23.0	8.0	5.8	130	>2400	80
JUL										
07...	1240	1.8	232	7.3	23.5	9.0	4.5	540	350	75
AUG										
10...	1220	4.2	204	6.6	26.0	4.9	4.5	>2400	>2400	57
SEP										
30...	1030	--	242	7.2	19.5	7.4	18	240	240	62

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
OCT									
20...	17	4.7	16	5.9	8.0	<.1	48	23	.2
FEB									
01...	13	3.4	37	3.7	11	--	29	61	.2
MAR									
24...	23	6.8	22	4.9	4.0	--	74	37	.2
JUN									
23...	22	6.1	13	5.4	8.0	--	65	26	.3
JUL									
07...	21	5.4	13	4.5	17	--	45	20	.2
AUG									
10...	16	4.1	12	4.6	11	--	41	16	.3
SEP									
30...	17	4.7	15	5.2	12	<.5	38	23	.2

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT									
20...	6.9	149	--	.55	--	2.20	2.8	.98	4.4
FEB									
01...	5.2	180	--	.70	--	1.00	1.7	.44	4.8
MAR									
24...	11	190	E.020	.80	1.10	E2.00	--	.28	2.6
JUN									
23...	11	173	.050	.80	.730	2.00	2.8	.52	4.9
JUL									
07...	11	171	.070	.60	.230	1.50	2.1	.80	4.4
AUG									
10...	7.0	126	.050	.40	E1.00	2.00	2.4	.80	7.6
SEP									
30...	7.1	153	.050	.40	E.950	--	--	.44	3.6

01467069 NORTH BRANCH PENNSAUKEN CREEK NEAR MOORESTOWN, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)
OCT 20...	1230	<10	2	<10	60	<1	10	13
SEP 30...	1030	10	4	<10	60	2	10	9

DATE	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	PHENOLS (UG/L)
OCT 20...	5100	14	150	<.1	15	<1	60	9
SEP 30...	5300	16	150	.1	10	<1	30	4

01467081 SOUTH BRANCH PENNSAUKEN CREEK AT CHERRY HILL, NJ

LOCATION.--Lat 39°56'30", long 75°00'05", Camden County, Hydrologic Unit 02040202, on left bank on downstream wingwall of bridge on Mill Road in Cherry Hill, 1.1 mi (1.8 km) south of Maple Shade and 3.8 mi (6.1 km) upstream from confluence with the North Branch.

DRAINAGE AREA.--8.98 mi^2 (23.26 km^2), revised.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1967 to September 1976, October 1977 to current year.

GAGE.--Water-stage recorder. Datum of gage is 8.12 ft (2.475 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Water-discharge records poor. Diurnal fluctuations from unknown source.

AVERAGE DISCHARGE.--14 years, (water years 1968-76, 1978-82) 18.4 ft^3/s (0.521 m^3/s), 27.27 in/yr (693 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 868 ft^3/s (24.6 m^3/s) Aug. 28, 1978, gage height, 10.19 ft (3.106 m); maximum gage height, 11.34 ft (3.456 m) Aug. 28, 1971; minimum discharge, 2.6 ft^3/s (0.073 m^3/s) Oct. 6, 9, 10, 11, 1970, gage height, 1.71 ft (0.521 m).

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 300 ft^3/s (8.50 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	(m^3/s)	Gage height (ft)	(m)
Apr. 28	0015	438	12.4	7.44	2.268
May 29	0300	*461	13.1	7.62	2.323

Minimum discharge, 2.5 ft^3/s (0.071 m^3/s) Sept. 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	7.1	20	49	70	10	20	19	26	4.4	5.4	5.3
2	15	7.1	44	22	25	10	13	18	30	4.2	5.3	6.1
3	5.4	7.1	13	14	186	15	41	17	23	3.9	5.3	22
4	4.9	6.6	17	205	38	13	43	18	12	4.2	5.3	5.2
5	4.9	6.8	21	69	20	14	16	16	16	3.9	12	4.6
6	8.0	11	9.9	28	16	22	103	15	11	3.8	18	4.8
7	5.9	4.1	7.8	20	12	82	30	15	9.7	4.0	5.8	4.7
8	4.6	3.4	11	17	11	47	19	15	8.8	4.1	5.4	4.6
9	4.5	3.3	8.1	16	20	19	19	15	8.2	4.3	7.3	4.6
10	4.6	3.9	6.9	14	20	14	16	15	7.8	4.4	17	4.6
11	4.6	3.4	6.4	13	12	13	14	15	7.7	4.2	5.3	4.5
12	4.7	3.1	6.4	13	10	23	13	15	7.4	4.0	12	4.3
13	5.6	3.2	6.4	12	9.4	16	13	31	109	3.8	5.5	4.4
14	8.0	3.2	18	15	8.8	13	14	21	69	3.8	5.2	4.3
15	7.8	7.5	125	12	8.7	12	8.6	15	15	3.7	4.9	4.4
16	7.4	36	92	11	10	16	8.6	14	21	4.0	5.3	4.7
17	7.4	12	29	11	9.2	20	13	14	48	4.2	7.1	4.5
18	17	21	19	14	11	13	74	13	12	4.2	8.0	3.9
19	27	7.2	13	12	32	12	18	12	9.7	4.4	4.7	2.9
20	13	8.0	11	10	22	11	14	12	8.7	5.2	4.8	15
21	9.2	6.6	9.8	9.2	22	11	13	12	8.1	6.0	6.2	5.0
22	9.4	5.2	9.7	8.4	16	11	11	14	7.9	5.5	4.3	12
23	12	4.9	14	34	13	10	11	17	7.3	5.9	9.2	15
24	17	4.6	12	29	12	10	10	15	6.8	5.5	6.9	4.1
25	18	4.7	10	22	11	9.7	11	36	6.0	5.2	18	3.9
26	58	4.8	9.1	13	9.7	10	44	15	6.2	5.3	5.8	4.1
27	35	4.8	10	14	10	9.4	95	13	5.4	5.3	5.5	27
28	66	4.7	10	9.3	10	8.6	202	105	11	68	5.4	5.8
29	19	4.8	9.0	9.5	---	8.5	32	425	5.9	9.8	5.1	5.1
30	9.0	4.7	8.2	13	---	8.6	22	40	4.3	9.3	5.3	4.9
31	7.5	---	9.0	38	---	27	---	27	---	6.0	5.4	---
TOTAL	437.4	214.8	595.7	776.4	654.8	518.8	961.2	1044	528.9	214.5	226.7	206.3
MEAN	14.1	7.16	19.2	25.0	23.4	16.7	32.0	33.7	17.6	6.92	7.31	6.88
MAX	66	36	125	205	186	82	202	425	109	68	18	27
MIN	4.5	3.1	6.4	8.4	8.7	8.5	8.6	12	4.3	3.7	4.3	2.9
CFSM	1.57	.80	2.14	2.78	2.61	1.86	3.56	3.75	1.96	.77	.81	.77
IN.	1.81	.89	2.47	3.22	2.71	2.15	3.98	4.32	2.19	.89	.94	.85

CAL YR 1981 TOTAL 4762.9 MEAN 13.0 MAX 170 MIN 3.1 CFSM 1.45 IN 19.73
WTR YR 1982 TOTAL 6379.5 MEAN 17.5 MAX 425 MIN 2.9 CFSM 1.95 IN 26.42

01467081 SOUTH BRANCH PENNSAUKEN CREEK AT CHERRY HILL, NJ--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1970-73, 1975 to current year.

COOPERATION.--Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	STREP-TOCOCCI FECAL (MPN)	HARD-NESS (MG/L AS CACO3)
OCT 06...	1100	4.8	420	7.4	17.0	4.7	7.2	2100	790	80
FEB 22...	1045	15	331	7.1	5.0	10.5	4.9	490	80	84
MAR 18...	1030	13	380	7.0	8.0	10.2	--	170	790	91
JUN 17...	1345	23	208	6.9	21.0	6.5	6.4	3500	2800	58
JUL 07...	1100	E4.0	361	7.3	21.0	5.1	6.6	11000	35000	85
AUG 10...	1000	7.9	178	6.6	24.0	4.5	6.7	7900	13000	47

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
OCT 06...	23	5.6	33	10	58	<.1	37	28	.3
FEB 22...	23	6.4	28	5.4	30	--	55	42	.2
MAR 18...	25	6.9	24	5.8	21	--	63	31	.2
JUN 17...	16	4.5	11	4.1	22	<.5	37	14	<.1
JUL 07...	23	6.8	28	8.4	39	--	50	30	.3
AUG 10...	13	3.5	11	4.6	20	--	26	12	.2

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 06...	14	213	--	.84	--	E5.30	--	5.40	5.6
FEB 22...	11	216	--	1.2	1.20	2.40	3.6	1.30	5.2
MAR 18...	14	193	.090	1.4	1.90	E3.00	--	1.30	3.1
JUN 17...	9.8	164	.080	.60	1.10	1.60	2.2	.98	13
JUL 07...	15	237	.490	1.5	3.40	4.70	6.2	3.00	5.6
AUG 10...	7.6	109	.130	.80	E1.50	2.30	3.1	2.00	6.8

01467081 SOUTH BRANCH PENNSAUKEN CREEK AT CHERRY HILL, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	NITROGEN,NH4 + ORG. TOT IN BOT MAT (MG/KG AS N)	CARBON, INORGANIC, TOT IN BOT MAT (G/KG AS C)	CARBON, INORG + ORGANIC TOT. IN BOT. MAT (G/KG AS C)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)
OCT 06...	1100	654	.2	2.9	20	3	0	<10	270	1	<1
JUN 17...	1345	--	--	--	30	3	--	<10	80	1	--

DATE	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)
OCT 06...	20	5	<10	10	7	1100	490	2	30	70	14
JUN 17...	20	--	--	14	--	4100	--	15	--	120	--

DATE	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, RECOV. FM BOTTOM MATERIAL (UG/G AS NI)	SELENIUM, TOTAL (UG/L AS SE)	SELENIUM, TOTAL IN BOTTOM MATERIAL (UG/G)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	PHENOLS (UG/L)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	PCN, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT 06...	<.1	<.01	1	<10	<1	<1	30	32	--	6	<1.0
JUN 17...	.2	--	7	--	<1	--	50	--	<1	--	--

DATE	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIAZINON, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ETHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT 06...	<.1	18	7.8	1.8	3.1	.0	1.4	.1	<.1	<.1	.2
JUN 17...	--	--	--	--	--	--	--	--	--	--	--

DATE	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	MALATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARATHION, TOT. IN BOTTOM MATL. (UG/KG)	METHYL TRITHION, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	PARATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	PERTHANE IN BOTTOM MATERIL (UG/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)	TRITHION, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT 06...	.1	.2	<.1	<.1	<.1	<.1	<.1	<.1	<.10	<1.0	<.1
JUN 17...	--	--	--	--	--	--	--	--	--	--	--

01467120 COOPER RIVER AT NORCROSS ROAD AT LINDENWOLD, NJ

LOCATION.--Lat 39°49'43", long 74°58'55", Camden County, Hydrologic Unit 02040202, at bridge on Norcross Road in Lindenwold, 50 ft (15 m) downstream from outflow of Linden Lake, 1.1 mi (1.8 km) southwest of Gibbstown, and 1.7 mi (2.8 km) south of Glendale.

DRAINAGE AREA.--1.13 mi² (2.93 km²).

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976 to current year.

COOPERATION.--Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	STREP-TOCOCCI FECAL (MPN)
OCT									
07...	1045	<.10	79	7.1	15.0	8.1	1.9	5	2
FEB									
22...	1200	<.10	82	6.8	4.0	11.9	2.7	17	2
MAR									
24...	1300	<.10	100	7.2	10.5	10.6	--	<2	<2
JUN									
24...	1145	<.10	74	6.8	23.0	8.0	2.6	4	17
JUL									
15...	1030	<.10	75	6.8	26.0	6.1	3.4	7	170
AUG									
12...	1015	<.10	82	6.0	22.0	5.6	2.8	33	33

DATE	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)
OCT									
07...	22	7.0	1.0	3.8	1.6	11	.1	11	8.1
FEB									
22...	21	6.4	1.2	7.6	1.4	11	--	13	11
MAR									
24...	23	6.9	1.3	6.8	1.5	10	--	14	9.8
JUN									
24...	23	7.4	1.1	5.8	.6	15	<.5	7.0	8.4
JUL									
15...	23	7.4	1.2	4.8	.4	16	--	5.0	8.6
AUG									
12...	22	6.8	1.2	5.3	2.8	16	--	18	10

DATE	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT									
07...	<.1	1.4	58	--	<.05	--	<.05	.12	5.2
FEB									
22...	<.1	3.5	66	--	<.10	<.050	.35	.06	3.2
MAR									
24...	<.1	1.5	56	E.020	<.10	<.050	E.72	.12	4.4
JUN									
24...	<.1	1.3	57	--	--	--	--	--	9.1
JUL									
15...	.1	1.4	62	.010	<.10	.200	.79	.18	8.5
AUG									
12...	<.1	3.5	58	<.010	<.10	.140	1.40	.15	7.6

01467120 COOPER RIVER AT NORCROSS ROAD AT LINDENWOLD, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	NITROGEN, NH4 + ORG. TOT IN BOT MAT (MG/KG AS N)	CARBON, INORGANIC, TOT IN BOT MAT (G/KG AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (G/KG AS C)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)
OCT 07...	1045	689	2.4	8.9	30	2	0	<10	<10	1	<1
JUN 24...	1145	--	--	--	30	4	--	<10	--	<1	--

DATE	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)
OCT 07...	10	<1	<10	18	28	780	250	4	60	20	11
JUN 24...	10	--	--	4	--	2800	--	2	--	70	--

DATE	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, RECOV. FM BOTTOM MATERIAL (UG/G AS NI)	SELENIUM, TOTAL (UG/L AS SE)	SELENIUM, TOTAL IN BOTTOM MATERIAL (UG/G)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	PHENOLS (UG/L)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	PCN, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT 07...	.1	<.01	5	<10	<1	<1	30	13	13	26	<1.0
JUN 24...	.1	--	5	--	<1	--	60	--	9	--	--

DATE	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIAZINON, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ETHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT 07...	32	72	6.0	6.3	2.4	<.1	64	<.1	<.1	<.1	<.1
JUN 24...	--	--	--	--	--	--	--	--	--	--	--

DATE	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	MALATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARATHION, TOT. IN BOTTOM MATL. (UG/KG)	METHYL TRITHION, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	PARATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	PERTHANE IN BOTTOM MATERIL (UG/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)	TRITHION, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT 07...	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.10	<1.0	<.1
JUN 24...	--	--	--	--	--	--	--	--	--	--	--

01467130 COOPER RIVER AT KIRKWOOD, NJ

LOCATION.--Lat 39°50'11", long 75°00'06", Camden County, Hydrologic Unit 02040202, at outlet of Kirkwood Lake in Kirkwood, 100 ft (30 m) east of tracks of Pennsylvania-Reading Seashore Lines, and 1.0 mi (1.6 km) north of Laurel Springs.

DRAINAGE AREA.--5.14 mi^2 (13.2 km^2).

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1964, 1967, 1976 to June 1982 (discontinued).

COOPERATION.--Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	STREPTOCOCCI FECAL (MPN)	HARDNESS (MG/L AS CACO3)
OCT 08...	1045	410	7.3	14.0	8.5	13	350	70	49
FEB 03...	1200	229	6.9	3.0	11.0	9.6	>2400	>2400	33
MAR 22...	1030	340	7.2	10.0	9.2	5.9	130	50	50
JUN 22...	1300	272	7.6	25.0	10.0	15	230	80	49

DATE	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
OCT 08...	15	2.8	33	9.1	36	<.1	22	55	.2
FEB 03...	10	2.0	22	3.2	5.0	--	16	31	.1
MAR 22...	15	3.1	28	6.4	39	--	24	41	.1
JUN 22...	15	2.7	21	5.8	7.0	<.5	17	38	.2

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 08...	6.8	183	--	.39	--	E11.0	--	1.10	6.8
FEB 03...	4.6	125	--	.30	--	4.80	5.1	.45	8.8
MAR 22...	6.8	150	.020	.10	8.70	E8.70	--	1.10	9.5
JUN 22...	6.6	143	.160	.40	E5.30	6.80	7.2	.58	10

01467130 COOPER RIVER AT KIRKWOOD, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	NITROGEN,NH4 + ORG. TOT IN BOT MAT (MG/KG AS N)	CARBON, INORGANIC, TOT IN BOT MAT (G/KG AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (G/KG AS C)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)
OCT											
08...	1045	643	.2	7.5	30	5	0	<10	220	1	<1
JUN											
22...	1300	--	--	--	120	4	--	<10	140	1	--

DATE	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)
OCT											
08...	10	2	<10	8	5	900	580	13	50	60	6
JUN											
22...	10	--	--	7	--	1300	--	11	--	50	--

DATE	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, RECOV. FM BOTTOM MATERIAL (UG/G AS NI)	SELENIUM, TOTAL (UG/L AS SE)	SELENIUM, TOTAL IN BOTTOM MATERIAL (UG/G)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	PHENOLS (UG/L)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	PCN, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT											
08...	.1	<.01	2	<10	<1	<1	30	37	19	15	<1.0
JUN											
22...	<.1	--	4	--	<1	--	40	--	5	--	--

DATE	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIAZINON, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ETHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT											
08...	<.1	17	4.6	3.4	1.8	<.1	.5	<.1	<.1	<.1	<.1
JUN											
22...	--	--	--	--	--	--	--	--	--	--	--

DATE	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	MALATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARATHION, TOT. IN BOTTOM MATL. (UG/KG)	METHYL TRITHION, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	PARATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	PERTHANE IN BOTTOM MATERIL (UG/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)	TRITHION, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT											
08...	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.10	<1.0	<.1
JUN											
22...	--	--	--	--	--	--	--	--	--	--	--

01467140 COOPER RIVER AT LAWNSIDE, NJ

LOCATION.--Lat 39°52'14", long 75°00'59", Camden County, Hydrologic Unit 02040202, at bridge on Woodcrest Road in Lawnside, 0.2 mi (0.3 km) upstream from the New Jersey Turnpike, and 1.7 mi (2.7 km) upstream from Tindale Run.

DRAINAGE AREA.--12.7 mi^2 (32.9 km^2).

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1964-65, 1976 to current year.

COOPERATION.--Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	STREP-TOCOCCI FECAL (MPN)	HARD-NESS (MG/L AS CACO3)
OCT 20...	1030	39	400	7.2	11.0	5.6	11	<200	<200	55
FEB 03...	1030	600	190	6.8	2.0	11.3	7.3	1600	>2400	31
MAR 22...	0900	39	342	7.2	9.0	7.6	14	2800	1700	56
JUN 22...	1045	44	322	6.8	21.0	2.0	11	>24000	5400	55
JUL 15...	1200	42	352	7.3	25.0	1.2	8.7	>2400	920	59
AUG 31...	1030	--	370	6.4	20.0	3.2	11	1300	4900	59
SEP 29...	1030	--	369	7.3	19.5	3.4	>26	16000	13000	55

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
OCT 20...	16	3.6	34	9.2	40	<.1	26	45	.2
FEB 03...	8.9	2.2	20	3.2	7.0	--	17	30	.1
MAR 22...	16	3.8	30	7.4	57	--	32	33	.2
JUN 22...	16	3.6	24	7.6	18	--	24	30	.3
JUL 15...	17	4.0	27	8.3	80	--	24	36	.3
AUG 31...	17	3.9	32	9.5	20	--	27	38	.3
SEP 29...	16	3.6	27	8.8	6.0	<.5	24	38	.3

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 20...	13	196	--	.63	--	8.00	8.6	4.80	9.8
FEB 03...	3.9	107	--	.40	--	2.50	2.9	.98	7.0
MAR 22...	12	164	.070	.30	8.00	E9.30	--	4.20	8.0
JUN 22...	12	161	.110	.20	E7.30	8.90	9.1	4.70	13
JUL 15...	13	181	.040	<.05	8.70	10.7	--	5.23	11
AUG 31...	12	199	.220	1.2	7.50	9.60	11	5.90	10
SEP 29...	12	178	.190	.70	E7.20	7.30	8.0	5.20	7.5

DELAWARE RIVER BASIN

01467140 COOPER RIVER AT LAWNSIDE, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	NITRO-GEN,NH4 + ORG. TOT IN BOT MAT (MG/KG AS N)	CARBON, INOR-GANIC, TOT IN BOT MAT (G/KG AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (G/KG AS C)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC TOTAL IN BOT-TOM MA-TERIAL (UG/G AS AS)	BERYL-LIUM, TOTAL RECOV-ERABLE (UG/L AS BE)	BORON, TOTAL RECOV-ERABLE (UG/L AS B)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CADMIUM RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CD)
OCT											
20...	1030	--	--	--	<10	3	--	<10	240	<1	--
SEP											
29...	1030	710	.7	12	10	5	1	<10	190	<1	1

DATE	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	CHRO-MIUM, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	COBALT, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CO)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	COPPER, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	LEAD, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, RECOV. FM BOT-TOM MA-TERIAL (UG/G)
OCT											
20...	10	--	--	21	--	2800	--	5	--	70	--
SEP											
29...	10	5	10	21	24	3900	9000	7	30	80	20

DATE	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	MERCURY RECOV. FM BOT-TOM MA-TERIAL (UG/G AS HG)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	NICKEL, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS NI)	SELE-NIUM, TOTAL (UG/L AS SE)	SELE-NIUM, TOTAL IN BOT-TOM MA-TERIAL (UG/G)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS ZN)	PHENOLS (UG/L)	PCB, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	PCN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)
OCT											
20...	<.1	--	4	--	<1	--	60	--	--	--	--
SEP											
29...	.1	<.01	5	<10	<1	<1	30	60	8	11	<1.0

DATE	ALDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	CHLOR-DANE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDD, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDT, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DI-AZINON, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DI-ELDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	ENDO-SULFAN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	ENDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	ETHION, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	HEPTA-CHLOR, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)
OCT											
20...	--	--	--	--	--	--	--	--	--	--	--
SEP											
29...	<.1	24	7.9	<.1	1.6	<.1	.8	<.1	<.1	<.1	<.1

DATE	HEPTA-CHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	MALA-THION, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	METH-OXY-CHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARA-THION, TOT. IN BOTTOM MATL. (UG/KG)	METHYL TRI-THION, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	PARA-THION, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	PER-THANE IN BOTTOM MATERIL (UG/KG)	TOXA-PHENE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	TRI-THION, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)
OCT											
20...	--	--	--	--	--	--	--	--	--	--	--
SEP											
29...	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<1.00	<10	<.1

01467150 COOPER RIVER AT HADDONFIELD, NJ

LOCATION.--Lat 39°54'11", long 75°01'19", Camden County, Hydrologic Unit 02040202, on right bank of Wallworth Lake in Pennypacker Park, 200 ft (61 m) upstream from bridge on State Highway 41 (Kings Highway) in Haddonfield, 0.6 mi (1.0 km) upstream from North Branch Cooper River, and 7.7 mi (12.4 km) upstream from mouth.

DRAINAGE AREA.--17.0 mi² (44.0 km²), revised.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1963 to current year.

REVISED RECORDS.--WRD-NJ 1969: 1967(M).

GAGE.--Water-stage recorder above concrete dam. Datum of gage is 9.29 ft (2.832 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Water-discharge records good. Occasional regulation at low flow from Kirkwood Lake, other small lakes and wastewater treatment plants.

AVERAGE DISCHARGE.--19 years, 35.5 ft³/s (1.005 m³/s), 27.71 in/yr (704 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,300 ft³/s (93.5 m³/s) Aug. 28, 1971, gage height, 5.46 ft (1.664 m); minimum, 0.8 ft³/s (0.023 m³/s) Nov. 13, 1972, gage height, 1.07 ft (0.326 m) regulation from unknown source; minimum daily, 1.2 ft³/s (0.034 m³/s) June 27, 1964.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 500, ft³/s (14.2 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Apr. 28	0315	676	19.1	2.98	0.908
May 29	0215	*797	22.6	3.15	0.960

Minimum discharge, 14 ft³/s (0.40 m³/s) Nov. 4, July 18, 25, Aug. 29, gage height, 1.42 ft (0.433 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	18	44	82	98	29	40	32	34	33	20	17
2	61	18	91	33	38	28	36	30	41	26	19	17
3	23	18	36	25	248	32	62	29	29	30	20	47
4	18	17	35	252	70	29	64	30	31	33	18	21
5	18	17	36	77	38	33	36	27	39	23	20	17
6	19	33	23	35	33	42	145	26	32	21	28	16
7	21	25	22	30	29	113	59	26	30	20	21	17
8	16	21	24	27	28	98	37	26	28	20	19	18
9	16	19	22	26	37	36	35	26	27	19	22	17
10	17	19	20	23	37	31	31	25	25	18	22	17
11	18	18	19	21	28	29	28	24	26	21	19	16
12	20	17	19	20	26	36	30	24	26	21	27	16
13	20	17	19	21	26	30	31	31	143	18	21	17
14	20	17	32	24	26	29	31	36	163	18	18	16
15	20	22	213	24	26	27	29	26	39	17	17	16
16	19	94	190	24	28	32	27	25	33	17	17	17
17	19	34	53	22	26	36	30	25	43	17	18	16
18	33	49	33	22	29	29	120	24	28	16	18	16
19	51	24	26	21	55	27	36	23	26	16	16	16
20	25	23	24	22	40	26	27	25	28	22	17	32
21	23	21	23	22	38	28	20	39	25	21	19	23
22	24	19	24	23	32	27	24	28	23	18	16	30
23	34	20	28	51	28	27	21	35	24	18	27	27
24	43	22	27	53	27	27	17	34	23	17	26	20
25	46	19	24	30	26	26	17	57	23	16	32	18
26	106	18	23	25	25	27	61	33	22	16	21	18
27	65	18	24	23	25	25	119	27	22	16	21	46
28	123	18	25	23	27	24	364	148	43	212	19	24
29	26	17	23	22	---	25	56	379	142	44	15	19
30	22	18	22	26	---	26	37	52	114	24	16	17
31	19	---	20	57	---	42	---	36	---	22	16	---
TOTAL	1002	710	1244	1186	1194	1076	1670	1408	1332	850	625	624
MEAN	32.3	23.7	40.1	38.3	42.6	34.7	55.7	45.4	44.4	27.4	20.2	20.8
MAX	123	94	213	252	248	113	364	379	163	212	32	47
MIN	16	17	19	20	25	24	17	23	22	16	15	16
CFSM	1.90	1.39	2.36	2.25	2.51	2.04	3.28	2.67	2.61	1.61	1.19	1.22
IN.	2.19	1.55	2.72	2.60	2.61	2.35	3.65	3.08	2.91	1.86	1.37	1.37

CAL YR 1981 TOTAL 11220 MEAN 30.7 MAX 237 MIN 13 CFSM 1.81 IN 24.55
WTR YR 1982 TOTAL 12921 MEAN 35.4 MAX 379 MIN 15 CFSM 2.08 IN 28.27

01467190 COOPER RIVER AT CAMDEN, NJ

LOCATION.--Lat 39°55'35", long 75°05'03", Camden County, Hydrologic Unit 02040202, at bridge on U.S. Routes 130 and 30 in Camden, 3.4 mi (5.5 km) upstream from mouth, 3.5 mi (5.6 km) northwest of Haddonfield, and 3.7 mi (6.0 km) downstream from North Branch Cooper River.

DRAINAGE AREA.--35.2 mi² (91.2 km²).

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1970-71, 1976 to current year.

COOPERATION.--Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	STREPTOCOCCI FECAL (MPN)	HARDNESS (MG/L AS CACO3)
FEB									
04...	1100	195	6.9	2.0	9.9	6.6	>2400	>2400	33
MAR									
25...	1130	370	7.3	11.0	5.7	4.0	230	230	--
JUN									
17...	1130	173	6.8	22.0	5.6	3.7	1800	1300	43
JUL									
20...	1300	348	7.9	29.0	9.1	9.0	490	13	71
AUG									
12...	1200	331	7.5	25.0	7.0	5.5	920	79	60

DATE	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)
FEB									
04...	9.1	2.5	20	2.9	19	18	27	.1	4.4
MAR									
25...	--	--	--	--	--	--	--	--	--
JUN									
17...	12	3.1	9.6	3.8	15	22	12	<.1	6.5
JUL									
20...	20	5.0	29	8.0	37	29	32	.3	12
AUG									
12...	17	4.3	23	1.3	42	33	30	.3	11

DATE	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
FEB								
04...	115	--	.60	--	2.70	3.3	1.20	11
MAR								
25...	--	.100	.80	6.40	E7.80	--	1.10	--
JUN								
17...	103	.050	.70	2.40	--	--	.80	11
JUL								
20...	200	.110	.30	5.40	8.40	8.7	.73	7.9
AUG								
12...	164	.110	.50	5.10	7.20	7.7	.92	7.7

01467329 SOUTH BRANCH BIG TIMBER CREEK AT BLACKWOOD TERRACE, NJ

LOCATION.--Lat 39°48'05", long 75°04'27", Gloucester County, Hydrologic Unit 02040202, at bridge on Blackwood-Clementon Road at Blackwood Terrace, 1,000 ft (305 m) upstream from Bull Run, and 2.0 mi (3.2 km) northeast of Fairview.

DRAINAGE AREA.--19.1 mi² (49.5 km²).

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976 to current year.

COOPERATION.--Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	STREPTOCOCCI FECAL (MPN)	HARDNESS (MG/L AS CACO3)
OCT 19...	1030	37	131	7.0	11.5	8.2	7.8	540	920	39
FEB 18...	1000	29	137	6.9	3.0	11.1	3.6	13	79	42
MAR 25...	1300	15	144	7.6	12.5	11.6	2.0	130	20	42
JUN 23...	1130	26	123	6.9	23.0	8.7	2.4	3500	330	36
JUL 19...	1035	15	120	7.2	27.5	5.9	2.7	130	330	35
AUG 31...	1315	14	127	6.3	20.0	7.7	1.8	130	920	36

DATE	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
OCT 19...	11	2.9	8.5	2.8	25	<.1	13	10	.1
FEB 18...	12	2.9	10	2.4	20	--	15	15	<.1
MAR 25...	12	3.0	8.0	2.2	22	--	17	12	.1
JUN 23...	10	2.6	5.8	2.0	22	<.5	14	9.8	.1
JUL 19...	9.6	2.6	5.5	1.9	23	--	10	9.8	<.1
AUG 31...	9.7	2.8	7.3	2.2	25	--	11	9.4	<.1

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 19...	4.7	86	--	1.1	--	.50	1.6	.70	2.9
FEB 18...	6.0	100	--	1.5	.370	.80	2.3	.44	4.7
MAR 25...	4.8	83	.040	1.4	.280	E.80	--	.37	3.2
JUN 23...	5.4	77	.050	1.0	.140	.67	1.7	.52	3.6
JUL 19...	4.9	90	.040	.90	.230	.74	1.6	.55	4.1
AUG 31...	5.1	78	--	1.3	.170	.62	1.9	--	3.1

01467329 SOUTH BRANCH BIG TIMBER CREEK AT BLACKWOOD TERRACE, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)
OCT								
19...	1030	<10	1	<10	40	<1	10	7
JUN								
23...	1130	--	1	<10	30	1	10	3

DATE	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	PHENOLS (UG/L)
OCT								
19...	1100	4	20	.1	2	<1	50	2
JUN								
23...	1600	8	30	<.1	2	<1	10	3

01467359 NORTH BRANCH BIG TIMBER CREEK AT GLENDORA, NJ

LOCATION.--Lat 39°50'04", long 75°04'02", Camden County, Hydrologic Unit 02040202, at bridge on State Route 168 in Glendora, 0.5 mi (0.8 km) downstream from Otter Brook, 1.0 mi (1.6 km) southeast of Clements Bridge, and 1.6 mi (2.6 km) north of Mechanicsville.

DRAINAGE AREA.--18.8 mi² (48.7 km²).

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976 to current year.

COOPERATION.--Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	STREPTOCOCCI FECAL (MPN)	HARDNESS (MG/L AS CACO3)
OCT 19...	1215	163	7.0	12.0	6.8	11	920	>2400	40
FEB 16...	1130	218	7.3	8.0	6.2	5.1	130	240	47
MAR 22...	1130	230	7.2	7.0	8.5	3.6	330	80	56
JUN 09...	1300	192	7.0	19.5	4.2	5.8	490	3500	49
JUL 19...	1210	208	7.1	27.0	3.1	3.5	280	800	50
AUG 31...	1200	210	6.2	18.0	4.0	2.9	130	22000	50

DATE	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
OCT 19...	12	2.5	12	4.9	24	<.1	19	11	.2
FEB 16...	14	2.8	13	4.1	37	--	24	14	.2
MAR 22...	17	3.2	17	4.8	34	--	25	14	.2
JUN 09...	15	2.9	13	3.9	33	<.5	21	12	.2
JUL 19...	15	3.1	15	4.6	42	--	19	14	.2
AUG 31...	15	3.1	17	4.8	40	--	21	14	.2

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 19...	7.1	105	--	1.6	--	1.60	3.2	2.00	3.8
FEB 16...	8.5	117	--	.80	1.60	2.80	3.6	1.20	5.5
MAR 22...	9.2	127	--	1.1	2.60	E4.10	--	2.30	4.9
JUN 09...	8.9	114	.190	1.3	1.10	E2.20	--	1.41	--
JUL 19...	8.8	136	.320	1.1	.870	1.80	2.9	1.70	4.2
AUG 31...	6.8	118	.160	1.8	.550	1.20	3.0	1.00	1.9

01467359 NORTH BRANCH BIG TIMBER CREEK AT GLENDORA, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)
OCT								
19...	1215	<10	2	<10	180	<1	10	15
JUN								
09...	1300	30	2	<10	280	1	10	26

DATE	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	PHENOLS (UG/L)
OCT								
19...	3000	11	70	<.1	6	<1	60	11
JUN								
09...	5700	17	70	<.1	22	<1	40	2

01475000 MANTUA CREEK AT PITMAN, NJ

LOCATION.--Lat 39°44'14", long 75°06'53", Gloucester County, Hydrologic Unit 02040202 at bridge on Delsea Drive in Pitman, and 2.0 mi (3.2 km) upstream from Porch Branch.

DRAINAGE AREA.--6.05 mi^2 (15.67 km^2).

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1958-59, 1962, 1975 to June 1982 (discontinued).

COOPERATION.--Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	STREPTOCOCCI FECAL (MPN)	HARDNESS (MG/L AS CACO3)
OCT 13...	1030	7.6	120	7.3	12.0	10.0	.9	13	<2	37
JAN 26...	1200	--	151	7.2	1.5	12.3	1.7	33	6	36
MAR 30...	1100	8.2	127	7.3	9.0	11.4	--	--	--	37
JUN 09...	0930	9.0	99	7.2	18.0	8.6	1.9	33	350	33

DATE	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
OCT 13...	8.1	4.0	5.2	2.6	14	<.1	15	9.1	<.1
JAN 26...	8.3	3.7	8.4	2.5	16	--	18	16	<.1
MAR 30...	8.2	4.1	5.1	1.9	11	--	20	9.7	<.1
JUN 09...	7.5	3.4	4.1	2.1	16	<.5	13	7.9	<.1

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 13...	4.7	69	--	1.2	--	<.05	--	<.06	1.9
JAN 26...	6.5	93	--	2.4	--	.20	2.6	.06	1.5
MAR 30...	4.9	94	--	--	--	E.40	--	<.06	3.3
JUN 09...	5.2	81	.020	.99	.060	.63	1.6	.12	3.8

DATE	TIME	NITROGEN, NH4 + ORG. TOT IN BOT MAT (MG/KG AS N)	CARBON, INORGANIC, TOT IN BOT MAT (G/KG AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (G/KG AS C)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)
OCT 13...	1030	538	.1	2.5	10	2	1	<10	80	<1	<1
JUN 09...	0930	--	--	--	30	7	--	<10	20	<1	--

DATE	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)
OCT 13...	10	5	<10	6	8	360	3200	1	100	10	32
JUN 09...	10	--	--	8	--	1500	--	5	--	80	--

01475000 MANTUA CREEK AT PITMAN, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	MERCURY RECOV. FM BOT-TOM MA-TERIAL (UG/G AS HG)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	NICKEL, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS NI)	SELE-NIUM, TOTAL (UG/L AS SE)	SELE-NIUM, TOTAL IN BOT-TOM MA-TERIAL (UG/G)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS ZN)	PHENOLS (UG/L)	PCB, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	PCN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)
OCT											
13...	.1	<.01	3	<10	<1	<1	30	22	<1	8	<1.0
JUN											
09...	<.1	--	4	--	<1	--	20	--	1	--	--

DATE	ALDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	CHLOR-DANE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDD, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDT, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DI-AZINON, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DI-ELDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	ENDO-SULFAN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	ENDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	ETHION, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	HEPTA-CHLOR, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)
OCT											
13...	<.1	4.0	19	4.4	1.6	<.1	1.5	<.1	<.1	<.1	<.1
JUN											
09...	--	--	--	--	--	--	--	--	--	--	--

DATE	HEPTA-CHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	MALA-THION, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	METH-OXY-CHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARA-THION, TOT. IN BOTTOM MATL. (UG/KG)	METHYL TRI-THION, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	PARA-THION, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	PER-THANE IN BOTTOM MATERIL (UG/KG)	TOXA-PHENE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	TRI-THION, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)
OCT											
13...	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.10	<1.0	<.1
JUN											
09...	--	--	--	--	--	--	--	--	--	--	--

01475045 MANTUA CREEK AT MANTUA, NJ

LOCATION.--Lat 39°47'42", long 75°10'21", Gloucester County, Hydrologic Unit 02040202, at bridge on State Route 45 in Mantua, 0.9 mi (1.4 km) downstream from Chestnut Branch, 1.3 mi (2.1 km) east of Gates of Heaven Memorial Park, and 2.4 mi (3.9 km) northwest of Barnsboro.

DRAINAGE AREA.--31.1 mi² (80.6 km²).

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1975 to current year.

COOPERATION.--Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN DEMAND, BIO- CHEM- ICAL, 5 DAY (MG/L)	COLI- FORM, FECAL, EC BROTH (MPN)	STREP- TOCOCCI FECAL (MPN)	HARD- NESS (MG/L AS CACO3)
OCT									
19...	1030	172	7.1	12.0	8.1	10	2400	5400	50
FEB									
18...	1200	220	7.3	2.5	10.7	E2.3	<200	<200	47
MAR									
30...	1230	200	7.4	9.5	12.0	--	--	--	56
JUN									
09...	1100	175	7.1	17.5	7.1	2.6	1600	1600	54
JUL									
12...	1300	168	7.2	25.0	5.4	3.0	1400	3100	54
AUG									
25...	1030	168	6.1	22.0	5.1	3.0	3300	35000	49
SEP									
23...	1145	168	7.4	18.5	9.3	5.6	2600	2200	50

DATE	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY LAB (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)
OCT									
19...	14	3.7	9.4	4.4	24	--	22	15	.2
FEB									
18...	13	3.6	15	2.6	21	--	32	23	.2
MAR									
30...	16	4.0	11	2.5	27	--	34	12	.3
JUN									
09...	15	3.9	11	2.8	29	<.5	24	9.6	.2
JUL									
12...	15	3.9	10	2.6	35	--	21	11	.2
AUG									
25...	14	3.4	9.8	2.9	33	--	19	11	.2
SEP									
23...	14	3.6	11	3.3	28	--	22	15	.2

DATE	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	PHOS- PHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT									
19...	7.6	110	--	.84	--	.60	1.4	.58	3.8
FEB									
18...	8.2	135	--	1.4	.340	.70	2.1	.18	2.6
MAR									
30...	8.0	131	--	--	--	E.40	--	.15	2.6
JUN									
09...	11	109	.030	.80	.080	.75	1.5	.34	3.8
JUL									
12...	9.4	121	.010	.60	.120	.54	1.1	.40	3.7
AUG									
25...	9.4	97	.010	.62	<.050	1.10	1.7	.44	4.8
SEP									
23...	8.9	112	.030	.70	<.050	.91	1.6	.37	3.4

01475045 MANTUA CREEK AT MANTUA, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BERYL- LIUM, TOTAL RECOV- ERABLE (UG/L AS BE)	BORON, TOTAL RECOV- ERABLE (UG/L AS B)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)
JUN								
09...	1100	40	3	<10	50	<1	<10	10

DATE	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI)	SELE- NIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	PHENOLS (UG/L)
JUN								
09...	2500	12	80	.1	12	<1	20	10

01477100 RACCOON CREEK NEAR MULLICA HILL, NJ

LOCATION.--Lat 39°42'31", long 75°12'05", Gloucester County, Hydrologic Unit 02040202, at bridge on Cedar Grove-Richwood Grove Road, 0.6 mi (1.0 km) upstream from Miery Run, 1.0 mi (1.6 km) downstream from outflow of Ewan Lake, 2.5 mi (4.0 km) southeast of Mullica Hill, and 4.0 mi (6.4 km) southwest of Pitman.

DRAINAGE AREA.--10.1 mi² (26.2 km²).

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1953-63, 1975 to June 1982 (discontinued).

COOPERATION.--Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	STREPTOCOCCI FECAL (MPN)	HARDNESS (MG/L AS CACO3)
OCT 14...	1230	--	155	7.3	11.5	10.3	--	--	49	51
FEB 17...	1030	--	135	6.6	4.5	11.7	E1.4	49	17	50
MAR 29...	1100	11	155	7.3	8.5	11.7	.4	33	33	54
JUN 10...	1200	14	130	7.1	19.5	8.3	1.5	240	350	46

DATE	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
OCT 14...	14	3.8	3.2	3.3	17	.1	24	11	<.1
FEB 17...	13	4.2	4.0	3.0	11	--	28	9.6	<.1
MAR 29...	14	4.5	3.7	2.8	10	--	22	15	.1
JUN 10...	12	4.0	3.2	2.9	16	<.5	26	8.8	<.1

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 14...	5.9	103	--	1.4	--	<.05	--	.09	2.4
FEB 17...	6.6	112	--	2.4	.380	.48	2.9	.09	2.3
MAR 29...	6.2	96	.020	2.3	E.170	E.20	--	.06	2.7
JUN 10...	6.1	91	.010	1.6	.070	.48	2.1	.09	3.3

01477100 RACCOON CREEK NEAR MULLICA HILL, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	NITROGEN,NH4 + ORG. TOT IN BOT MAT (MG/KG AS N)	CARBON, INORGANIC, TOT IN BOT MAT (G/KG AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (G/KG AS C)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)
OCT											
14...	1230	193	<.1	7.6	30	2	0	<10	<10	2	<1
JUN											
10...	1200	--	--	--	40	1	--	<10	20	1	--

DATE	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)
OCT											
14...	10	<1	<10	10	1	240	910	14	<10	20	6
JUN											
10...	10	--	--	5	--	680	--	15	--	40	--

DATE	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, RECOV. FM BOTTOM MATERIAL (UG/G AS NI)	SELENIUM, TOTAL (UG/L AS SE)	SELENIUM, TOTAL IN BOTTOM MATERIAL (UG/G)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	PHENOLS (UG/L)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	PCN, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT											
14...	.1	<.01	<1	<10	<1	<1	40	18	8	<1	<1.0
JUN											
10...	<.1	--	2	--	<1	--	10	--	<1	--	--

DATE	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIAZINON, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ETHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT											
14...	<.1	2.0	8.6	7.0	3.9	<.1	.3	<.1	<.1	<.1	<.1
JUN											
10...	--	--	--	--	--	--	--	--	--	--	--

DATE	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	MALATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARATHION, TOT. IN BOTTOM MATL. (UG/KG)	METHYL TRITHION, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	PARATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	PERTHANE IN BOTTOM MATERIL (UG/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)	TRITHION, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT											
14...	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.10	<1.0	<.1
JUN											
10...	--	--	--	--	--	--	--	--	--	--	--

01477120 RACCOON CREEK NEAR SWEDESBORO, NJ

LOCATION.--Lat 39°44'28", long 75°15'33", Gloucester County, Hydrologic Unit 02040202, on right bank 25 ft (8 m) downstream from county bridge No. 5-F-3 on Harrisonville-Gibbstown Road, 1.8 mi (2.9 km) west of Mullica Hill, and 2.8 mi (4.5 km) east of Swedesboro.

DRAINAGE AREA.--26.9 mi^2 (69.7 km^2), revised.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1966 to current year.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929. Prior to July 28, 1969, at datum 7.96 ft (2.426 m) higher. July 28, 1969 to Sept. 30, 1969, at datum 5.96 ft (1.817 m) higher.

REMARKS.--Water-discharge records poor.

AVERAGE DISCHARGE.--16 years, 41.4 ft^3/s (1.172 m^3/s), 18.80 in/yr (478 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,530 ft^3/s (100 m^3/s) Aug. 10, 1967, elevation, 17.44 ft (5.316 m) present datum; minimum daily, 2.9 ft^3/s (0.082 m^3/s) July 14, Aug. 27, 28, Sept. 10, 1966.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 300 ft^3/s (8.50 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Feb. 3	Unknown	401	11.4	11.09	3.380	May 29	0645	401	11.4	11.09	3.380
Apr. 28	0730	317	8.98	10.53	3.210	June 14	0245	*478	13.5	11.52	3.511

Minimum discharge, 11 ft^3/s (0.31 m^3/s) part or all of Sept. 12-20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	19	21	45	250	32	44	42	38	48	17	14
2	26	19	43	40	74	32	32	36	67	30	16	14
3	19	19	30	30	355	33	39	30	41	29	16	20
4	16	18	24	166	150	32	44	27	36	37	15	15
5	15	18	27	103	80	34	34	25	42	28	17	14
6	15	22	24	45	56	35	89	28	44	24	30	14
7	15	20	22	36	44	76	66	29	39	23	21	13
8	14	18	22	32	35	105	42	28	34	22	19	13
9	15	18	21	30	45	50	40	28	32	22	22	13
10	15	18	20	29	60	40	40	27	29	21	19	13
11	15	18	19	31	45	38	35	25	30	20	17	12
12	15	18	19	32	36	37	34	26	29	21	18	12
13	15	17	19	22	32	36	34	29	144	20	17	12
14	15	17	21	24	31	34	34	27	291	19	16	12
15	15	17	85	25	32	32	32	25	67	19	16	13
16	15	23	137	24	34	32	30	24	44	19	15	12
17	15	21	62	23	36	39	38	24	38	18	15	11
18	16	22	39	22	37	34	76	24	34	16	17	11
19	24	19	33	21	52	32	43	23	31	16	16	11
20	18	19	28	22	56	31	35	25	30	17	14	14
21	17	19	25	22	50	30	32	67	33	18	14	14
22	16	17	26	22	45	30	30	40	29	17	14	16
23	17	17	31	35	38	29	29	36	35	19	15	16
24	25	17	30	60	36	28	28	38	26	18	20	14
25	21	17	27	45	34	28	27	42	24	16	20	13
26	45	17	25	30	32	28	49	37	23	15	17	13
27	36	17	25	25	33	27	88	30	22	15	16	25
28	29	17	25	21	33	26	237	68	22	64	15	17
29	24	17	24	20	---	26	79	268	65	19	14	15
30	21	17	23	25	---	27	51	66	89	16	14	14
31	20	---	22	100	---	35	---	45	---	17	14	---
TOTAL	598	552	999	1207	1841	1128	1511	1289	1508	703	526	420
MEAN	19.3	18.4	32.2	38.9	65.8	36.4	50.4	41.6	50.3	22.7	17.0	14.0
MAX	45	23	137	166	355	105	237	268	291	64	30	25
MIN	14	17	19	20	31	26	27	23	22	15	14	11
CFSM	.72	.68	1.20	1.45	2.45	1.35	1.87	1.55	1.87	.84	.63	.52
IN.	.83	.76	1.38	1.67	2.55	1.56	2.09	1.78	2.09	.97	.73	.58

CAL YR 1981 TOTAL 8327.7 MEAN 22.8 MAX 209 MIN 9.1 CFSM .85 IN 11.52
WTR YR 1982 TOTAL 12282.0 MEAN 33.6 MAX 355 MIN 11 CFSM 1.25 IN 16.98

01477120 RACCOON CREEK NEAR SWEDESBORO, NJ--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1965 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: May 1966 to September 1973.
SUSPENDED-SEDIMENT DISCHARGE: June 1966 to September 1969.

COOPERATION.--Analyses of fecal coliform and fecal streptococci by the MPN method, and selected water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	STREP-TOCOCCI FECAL (MPN)
FEB 17...	1200	36	169	7.3	5.0	11.8	<1.3	130	17
MAR 29...	1230	26	181	7.4	8.0	12.4	.7	49	<2
JUN 10...	1015	30	162	7.2	17.0	8.9	1.1	540	540
JUL 12...	1100	22	177	7.4	23.0	7.7	1.9	350	1600
AUG 25...	1330	22	190	6.8	21.0	7.8	1.4	260	1600

DATE	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
FEB 17...	63	19	3.8	7.5	3.0	21	32	13	.2
MAR 29...	66	20	4.0	5.8	2.8	26	31	11	.2
JUN 10...	58	17	3.7	5.0	3.0	25	26	8.2	.2
JUL 12...	65	20	3.7	5.9	3.1	34	26	9.2	.3
AUG 25...	66	21	3.2	7.6	3.5	--	--	--	<.1

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
FEB 17...	10	123	--	2.0	E.280	.28	2.3	.34	--
MAR 29...	9.0	122	.020	1.7	.050	E.25	--	.28	2.5
JUN 10...	9.9	107	.020	1.9	.080	.45	2.4	.37	3.1
JUL 12...	11	117	.020	1.1	.140	.39	1.5	.44	3.3
AUG 25...	10	--	.010	1.3	.050	.60	1.9	.65	--

01477510 OLDMANS CREEK AT PORCHES MILL, NJ

LOCATION.--Lat 39°41'57", long 75°20'01", Salem County, Hydrologic Unit 02040206, at bridge on Kings Highway in Porches Mill, 150 ft (46 m) downstream of tributary from outflow of lake at Porches Mill, 1.0 mi (1.6 km) north of Seven Stars, and 2.1 mi (3.3 km) southeast of Auburn.

DRAINAGE AREA.--21.0 mi² (54.4 km²).

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1975 to current year.

COOPERATION.--Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	STREPTOCOCCI FECAL (MPN)
FEB 17...	1330	--	182	7.2	5.0	11.3	<1.0	13	8
MAR 31...	1230	--	197	7.2	10.0	10.6	1.6	79	79
JUN 10...	0900	24	156	7.1	18.0	7.5	1.7	170	>2400
JUL 20...	1040	2.8	212	7.5	25.0	7.0	1.7	540	220
AUG 25...	1200	3.2	208	6.7	22.0	7.7	1.7	490	1300

DATE	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
FEB 17...	72	21	4.7	3.9	3.1	19	33	15	<.1
MAR 31...	72	21	4.8	4.1	3.0	24	30	12	.2
JUN 10...	56	16	4.0	3.4	3.2	23	24	8.1	.2
JUL 20...	88	27	5.0	4.6	3.1	42	25	14	.3
AUG 25...	78	23	5.1	3.6	3.3	39	22	16	.3

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
FEB 17...	11	134	--	3.0	.400	.48	3.5	.12	2.5
MAR 31...	7.4	151	.020	2.4	.070	E.55	--	.12	3.7
JUN 10...	9.7	144	.030	1.7	.150	.71	2.4	.31	4.8
JUL 20...	12	159	.020	1.2	.120	.67	1.9	.31	3.6
AUG 25...	10	130	.010	1.4	<.050	.90	2.3	.25	4.3

01482100 DELAWARE RIVER AT DELAWARE MEMORIAL BRIDGE, AT WILMINGTON, DE

LOCATION.--Lat 39°41'21", long 75°31'19", New Castle County, Hydrologic Unit 02040205, on pier of right tower of downstream bridge of dual bridges at Wilmington, 2.0 mi (3.2 km) downstream from Christina River and at channel mile 67.70 (107.64 km).

DRAINAGE AREA.--11,030 mi² (28,570 km²).

TIDE ELEVATION DATA

PERIOD OF RECORD.--July 1967 to current year. Tidal volumes published from July 1967 to September 1973.

GAGE.--Water-stage recorder and water-quality monitor. Datum of gage is -10.00 ft (-3.048 m) National Geodetic Vertical Datum of 1929. Gage-height record converted to elevation above or below (-) National Geodetic Vertical Datum 1929 for publication.

REMARKS.--Refer to U.S. Geological Survey Water Resources Data Report PA-79-1 for water-quality data.

EXTREMES FOR PERIOD OF RECORD.--Maximum, 7.88 ft (2.402 m) Oct. 25, 1980; minimum, -5.86 ft (-1.786 m) Apr. 4, 1975.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum elevation known, 8.4 ft (2.56 m) Nov. 23, 1950, furnished by Corps of Engineers, U.S. Army; minimum, -9.1 ft (-2.77 m) Dec. 31, 1962.

EXTREMES FOR CURRENT YEAR.--Maximum elevation recorded, 5.56 ft (1.695 m) June 19; minimum recorded, -5.82 ft (1.774 m) Apr. 7.

Summaries of tide elevations during current year are as follows:

TIDE ELEVATIONS, IN FEET, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

		OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
Maximum	Elevation	5.03	5.50	4.79	5.20	4.95	4.81	5.23	5.21	5.56	5.22	4.92	5.04
high tide	Date	18	15	27	4	21	7	3	24	19	22	4	16
Minimum	Elevation	-2.82	-2.95	-3.80	-4.22	-3.07	-3.89	-5.82	-2.71	-2.43	-2.38	-2.55	-2.28
low tide	Date	8	7	6	12	27	28	7	9	23	19	20	4
Mean high tide		3.53	3.51	3.09	--	--	3.47	3.32	4.07	4.56	4.09	3.92	3.97
Mean water level		1.00	0.98	0.57	--	--	0.78	0.61	1.24	1.67	1.24	1.17	1.32
Mean low tide		-1.61	-1.67	-2.04	--	--	-1.87	-2.23	-1.74	-1.36	-1.76	-1.70	-1.46

NOTE.--Missing or doubtful record on Jan. 1-Feb. 28.

01482500 SALEM RIVER AT WOODSTOWN, NJ

LOCATION.--Lat 39°38'36", long 75°19'52", Salem County, Hydrologic Unit 02040206, on right end of Memorial Lake Dam at Woodstown, 0.2 mi (0.3 km) upstream from small brook, and 0.3 mi (0.5 km) downstream from Pennsylvania-Reading Seashore Lines bridge.

DRAINAGE AREA.--14.6 mi² (37.8 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March to September 1940, December 1941 to current year. Prior to October 1952, published as "Salem Creek at Woodstown".

REVISED RECORDS.--WSP 1432: 1951(M). WSP 1702: 1959.

GAGE.--Water-stage recorder above concrete dam. Datum of gage is 19.49 ft (5.941 m) National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1977 at datum 10.00 ft (3.048 m) higher.

REMARKS.--Water-discharge records fair except those below 10 ft³/s (0.28 m³/s), which are poor.

AVERAGE DISCHARGE.--40 years (water years 1943-82), 18.9 ft³/s (0.535 m³/s), 17.58 in/yr (447 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 22,000 ft³/s (623 m³/s) Sept. 1, 1940, gage height, 17.98 ft (5.480 m) present datum, from floodmark, from rating curve extended above 220 ft³/s (6.23 m³/s) on basis of slope-area measurement of peak flow at site 0.5 mi (0.8 km) downstream; no flow for short periods during many years just after waste gate was closed and water was below spillway.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 312 ft³/s (8.84 m³/s) Feb. 3, gage height, 11.77 ft (3.587 m), no peak above base of 350 ft³/s (9.91 m³/s); minimum daily discharge, 1.2 ft³/s (0.034 m³/s) Oct. 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.5	6.9	5.0	13	95	10	28	19	15	18	6.9	6.9
2	4.9	6.9	22	11	28	10	16	16	51	12	6.9	7.0
3	3.2	6.9	13	8.4	203	10	18	14	22	13	6.9	12
4	2.7	6.1	9.3	54	59	10	25	13	15	22	6.1	10
5	3.2	5.8	8.5	28	27	11	16	12	14	13	3.2	7.8
6	3.2	10	6.8	13	21	12	63	12	23	9.7	3.2	6.1
7	2.4	9.9	6.9	10	16	61	34	12	84	8.6	3.2	4.2
8	1.3	8.6	6.7	9.0	13	67	20	10	26	8.6	3.2	3.2
9	1.3	7.6	5.5	7.8	17	25	18	9.6	19	6.9	3.2	3.2
10	1.3	6.9	5.0	7.6	24	20	20	8.6	15	6.9	3.2	3.2
11	1.2	6.9	5.0	7.8	16	16	15	8.1	14	6.9	3.2	3.2
12	1.3	6.1	5.0	8.2	13	17	13	6.9	12	8.1	3.2	3.2
13	1.3	5.0	5.0	7.9	12	17	12	8.6	83	7.8	3.2	3.2
14	1.3	5.0	7.0	7.6	12	15	12	8.6	136	6.9	3.2	2.4
15	1.4	5.4	30	8.7	12	13	11	8.6	34	6.9	3.2	1.7
16	2.1	8.9	47	8.6	13	13	10	8.6	19	6.9	3.2	2.1
17	1.7	10	20	8.1	13	18	11	8.3	16	6.9	3.8	2.1
18	2.6	9.2	13	7.3	12	15	45	6.9	14	6.9	5.0	1.7
19	6.1	8.6	10	6.9	30	13	22	6.9	13	6.2	5.0	1.3
20	4.4	8.6	8.6	7.3	31	12	15	7.1	12	6.1	5.0	2.5
21	2.9	8.4	7.4	8.1	29	12	13	18	11	8.6	5.0	3.2
22	1.5	7.3	7.4	6.9	24	12	11	11	10	7.6	5.0	4.8
23	2.6	6.7	9.3	11	17	11	9.3	10	10	45	7.0	5.0
24	6.9	5.0	8.8	24	14	10	8.6	9.4	10	34	11	5.0
25	7.1	4.1	7.8	17	12	10	8.6	9.7	10	12	12	5.0
26	20	3.2	7.0	11	11	9.8	23	10	9.5	9.0	12	4.0
27	18	3.2	7.0	9.1	10	9.1	45	9.4	8.6	7.8	9.9	9.8
28	18	3.2	7.0	8.0	10	8.6	165	46	8.6	6.9	8.2	8.6
29	9.7	2.7	6.6	7.6	---	8.6	36	107	14	6.9	6.9	5.8
30	7.6	2.1	6.4	8.4	---	8.6	23	25	36	6.9	6.9	4.1
31	6.9	---	6.0	46	---	16	---	15	---	6.9	6.9	---
TOTAL	149.6	195.2	320.0	397.3	794	500.7	766.5	475.3	764.7	339.9	174.8	142.3
MEAN	4.83	6.51	10.3	12.8	28.4	16.2	25.6	15.3	25.5	11.0	5.64	4.74
MAX	20	10	47	54	203	67	165	107	136	45	12	12
MIN	1.2	2.1	5.0	6.9	10	8.6	8.6	6.9	8.6	6.1	3.2	1.3
CFSM	.33	.45	.71	.88	1.95	1.11	1.75	1.05	1.75	.75	.39	.33
IN.	.38	.50	.82	1.01	2.02	1.28	1.95	1.21	1.95	.87	.45	.36

CAL YR 1981 TOTAL 4239.82 MEAN 11.6 MAX 138 MIN .00 CFSM .80 IN 10.80
WTR YR 1982 TOTAL 5020.30 MEAN 13.8 MAX 203 MIN 1.2 CFSM .95 IN 12.79

01482500 SALEM RIVER AT WOODSTOWN, NJ--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1973 to current year.

COOPERATION.--Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	STREP-TOCOCCI FECAL (MPN)
FEB 25...	1030	12	223	7.4	3.0	12.4	E3.1	33	11
APR 14...	1145	12	201	7.4	13.0	10.3	3.2	2	7
JUN 08...	1310	26	164	7.2	19.5	8.3	5.7	>2400	>2400
JUL 13...	1330	8.6	223	7.7	30.5	6.1	3.9	79	49
SEP 01...	1130	6.9	215	8.6	22.0	9.4	5.5	<20	70

DATE	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
FEB 25...	74	16	8.2	8.0	4.9	16	35	20	.1
APR 14...	72	16	7.9	7.9	3.6	17	37	14	.2
JUN 08...	58	12	6.7	4.2	5.5	17	19	21	.2
JUL 13...	83	19	8.7	6.5	5.5	42	28	14	.3
SEP 01...	74	16	8.3	7.3	4.8	36	29	18	.2

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
FEB 25...	8.0	143	--	3.0	E.410	.76	3.8	.44	4.0
APR 14...	7.9	133	.030	2.6	.330	.95	3.6	.31	5.0
JUN 08...	6.5	125	.060	2.3	.250	2.00	4.3	.80	9.1
JUL 13...	8.4	162	.070	.60	.400	1.40	2.0	.70	6.7
SEP 01...	4.1	144	<.010	.20	.130	1.40	1.6	.55	3.5

RESERVOIRS IN DELAWARE RIVER BASIN

01416900 PEPACTON RESERVOIR.--Lat 42°04'38", long 74°58'04", Delaware County, NY, Hydrologic Unit 02040102, near release chamber at Downsville Dam on East Branch Delaware River, and 1.6 mi (2.6 km) east of Downsville, NY. DRAINAGE AREA, 371 mi^2 (961 km^2). PERIOD OF RECORD, September 1954 to current year. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Board of Water Supply, City of New York).

Reservoir is formed by an earthfill rockfaced dam; storage began Sept. 15, 1954. Usable capacity 140,190 mil gal (530.6 hm^3) between minimum operating level, elevation, 1,152.0 ft (351.13 m) and crest of spillway, elevation, 1,280.0 ft (390.14 m). Capacity: at crest of spillway 149,700 mil gal (566.6 hm^3); at minimum operating level, 9,609 mil gal (36.37 hm^3); at still of diversion tunnel, elevation, 1,143.0 ft (348.39 m), 6,098 mil gal (23.08 hm^3); in dead storage below release outlet, elevation, 1,126.50 ft (343.357 m), 1,898 mil gal (7.184 hm^3). Figures given herein represent total contents. Reservoir impounds water for diversion through East Delaware Tunnel to Rondout Reservoir on Rondout Creek, in Hudson River basin (see Delaware River Basin, diversions), for water supply to City of New York; for release during periods of low flow in the lower Delaware River basin, as directed by the Delaware River Master; and for conservation release. No diversion prior to Jan. 6, 1955. Records furnished by Bureau of Water Resources Development and Department of Environmental Protection, City of New York.

EXTREMES FOR PERIOD OF RECORD: Maximum contents observed, 154,027 mil gal (583.0 hm^3) Apr. 5, 1960, elevation, 1,282.27 ft (390.836 m); minimum observed (after first filling), 9,575 mil gal (36.24 hm^3) Dec. 26, 1964, elevation, 1,151.92 ft (351.105 m).

EXTREMES FOR CURRENT YEAR: Maximum contents observed, 150,780 mil gal (570.7 hm^3) Apr. 25, elevation, 1,280.53 ft (390.306 m); minimum observed, 76,020 mil gal (287.7 hm^3) Oct. 26, elevation, 1,232.08 ft (375.538 m).

01424997 CANNONSVILLE RESERVOIR.--Lat 42°03'46", long 75°22'29", Delaware County, NY, Hydrologic Unit 02040101, in emergency gate tower at Cannonsville Dam on West Branch Delaware River, and 1.8 mi (2.9 km) southeast of Stilesville, NY. DRAINAGE AREA, 454 mi^2 (1,176 km^2). PERIOD OF RECORD, October 1963 to current year. REVISED RECORDS, WRD-NY 1972: 1966. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Board of Water Supply, City of New York).

Reservoir is formed by an earthfill rockfaced dam; storage began Sept. 30, 1963, usable capacity 95,706 mil gal (362.2 hm^3) between minimum operating level, elevation, 1,040.0 ft (316.99 m) and crest of spillway, elevation, 1,150.0 ft (350.52 m). Capacity, at crest of spillway, 98,618 mil gal (373.3 hm^3); at minimum operating level, 2,912 mil gal (11.02 hm^3); at mouth of inlet channel to diversion tunnel, elevation, 1,035.0 ft (315.47 m), 1,892 mil gal (7.161 hm^3); in dead storage below release outlet elevation, 1,020.5 ft (311.05 m), 328 mil gal (1.241 hm^3). Figures given herein represent total contents. Impounded water is diverted for New York City water supply via West Delaware Tunnel to Rondout Reservoir in Hudson River basin (see Delaware River Basin, diversion); is released in Delaware River for downstream low flow augmentation as directed by Delaware River Master; and is released for conservation flow in the Delaware River. No diversion prior to Jan. 29, 1964. Records furnished by Bureau of Water Resources Development, City of New York.

EXTREMES FOR PERIOD OF RECORD: Maximum contents observed, 108,116 mil gal (409.2 hm^3) Mar. 15, 1977, elevation, 1,155.85 ft (352.303 m); minimum observed (after first filling), 11,901 mil gal (45.05 hm^3) Nov. 7, 1968, elevation, 1,066.24 ft (324.990 m).

EXTREMES FOR CURRENT YEAR: Maximum contents, 102,352 mil gal (387.4 hm^3) Apr. 5, elevation, 1,152.32 ft (351.227 m); minimum, 30,908 mil gal (117.0 hm^3) Oct. 23, elevation, 1,094.25 ft (333.527 m).

01428900 PROMPTON RESERVOIR.--Lat 41°35'18", long 75°19'39", Wayne County, PA, Hydrologic Unit 02040103, at dam on West Branch Lackawaxen River, 0.3 mi (0.5 km) north of Prompton, 0.4 mi (0.6 km) upstream from highway bridge and 0.5 mi (0.8 km) upstream from Van Auken Creek. DRAINAGE AREA, 59.6 mi^2 (154 km^2). PERIOD OF RECORD, December 1960 to current year. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

Reservoir formed by an earth and rockfill dam with ungaged bedrock spillway at elevation 1,205.00 ft (367.284 m); storage began July 1960. Capacity at elevation 1,205.00 ft (367.284 m) is 51,700 acre-ft (63.7 hm^3). Ordinary minimum (conservation) pool elevation, 1,125.00 ft (342.900 m) capacity, 3,420 acre-ft (4.22 hm^3). Reservoir is used for flood control and recreation. Figures given herein represent total contents. Regulation is accomplished by discharge through an ungated tunnel. Records furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 8,170 acre-ft (10.1 hm^3) June 29, 1973, elevation, 1,138.40 ft (346.984 m); minimum (after first filling), 2,920 acre-ft (3.60 hm^3) Sept. 27, 1964, elevation, 1,123.20 ft (342.351 m).

EXTREMES FOR CURRENT YEAR: Maximum contents, 8,040 acre-ft (9.91 hm^3) Mar. 26, elevation, 1,138.05 ft (346.878 m); minimum, 3,560 acre-ft (4.39 hm^3) Sept. 22-27, elevation, 1,125.22 ft (342.967 m).

01429400 GENERAL EDGAR JADWIN RESERVOIR.--Lat 41°36'44", long 75°15,55", Wayne County, PA, Hydrologic Unit 02040103, at dam on Dyberry Creek, 0.45 mi (0.72 km) upstream from unnamed tributary, 2.4 mi (3.9 km) north of Honesdale, and 2.9 mi (4.7 km) upstream from mouth. DRAINAGE AREA, 64.5 mi^2 (167.1 km^2). PERIOD OF RECORD, October 1959 to current year. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

Reservoir formed by an earth and rockfill dam with ungated, concrete spillway at elevation, 1,053.00 ft (320.954 m); storage began in October 1959. Capacity at elevation 1,053.00 ft (320.954 m) is 24,500 acre-ft (30.2 hm^3). Reservoir is used for flood control. Figures given herein represent total contents. Regulation is accomplished by discharge through an ungated tunnel. Records furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 6,520 acre-ft (8.04 hm^3) June 19, 1973, elevation 1,017.40 ft (310.104 m); no storage many times.

EXTREMES FOR CURRENT YEAR: Maximum contents, 780 acre-ft (0.972 hm^3) Apr. 4, elevation, 991.80 ft (302.301 m); minimum, 540 acre-ft (0.668 hm^3) Oct. 27, elevation, 989.43 ft (301.578 m).

01431700 LAKE WALLENPAUPACK.--Lat 41°27'35", long 75°11'10", Wayne County, PA, Hydrologic Unit 02040103, at dam on Wallenpaupack Creek at Wilsonville, 1.2 mi (1.9 km) south of Hawley and 1.5 mi (2.4 km) upstream from mouth. DRAINAGE AREA, 228 mi^2 (591 km^2). PERIOD OF RECORD, January 1926 to current year. GAGE, vertical staff. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Pennsylvania Power and Light Co.).

Reservoir formed by concrete gravity-type and earthfill dam with concrete spillway at elevation 1,176.00 ft (358.445 m) in two sections. Spillway equipped with roller gate, 14 ft high (4.267 m) on each section. Storage began Nov. 3, 1925; water in reservoir first reached minimum pool elevation in January 1926. Total capacity at elevation 1,190.00 ft (362.712 m), top of gates, is 209,300 acre-ft (258 hm^3) of which 157,800 acre-ft (195 hm^3) is controlled storage above elevation 1,160.00 ft (353.568 m), minimum pool. Reservoir is used for generation of hydrolelectric power. Figures given herein represent usable contents. Records furnished by Pennsylvania Power and Light Co.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 178,200 acre-ft (220 hm^3) Aug. 19-21, 1955, elevation, 1,193.45 ft (363.764 m); minimum (after first filling), 12,280 acre-ft (15.1 hm^3) Mar. 28, 1958, elevation, 1,162.60 ft (354.360 m).

EXTREMES FOR CURRENT YEAR: Maximum contents, 141,100 acre-ft (174.0 hm^3) Apr. 19-21, elevation, 1,187.10 ft (361.828 m); minimum, 59,720 acre-ft (73.6 hm^3) Nov. 13, elevation, 1,172.1 ft (357.256 m).

RESERVOIRS IN DELAWARE RIVER BASIN--Continued

01433000 SWINGING BRIDGE RESERVOIR.--Lat 41°34'25", long 74°47'00", Sullivan County, NY, Hydrologic Unit 02040104, at dam on Mongaup River, and 1.8 mi (2.9 km) northwest of Fowlersville, NY. DRAINAGE AREA, 118 mi^2 (306 km^2) excluding Cliff Lake, Lebanon Lake, and Toronto Reservoir. PERIOD OF RECORD, January 1930 to current year. REVISED RECORDS, WSP 1552: 1951-54. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Orange and Rockland Utilities, Inc.). All capacity figures given herein are based on zero storage at minimum operating pool level, 1,010 ft (308 m).

Reservoir is formed by an earthfill dam; storage began Jan. 19, 1930. Usable capacity, 1,436.6 mil ft^3 (40.7 hm^3) between elevations 1,010.0 ft (307.85 m), minimum operating pool, and 1,071.2 ft (326.50 m), top of flashboards. Capacity below elevation 1,010.0 ft (307.85 m), minimum operating pool, about 212.7 mil ft^3 (6.02 hm^3). Reservoir is used for storage of water for power. Figures given herein represent contents above 1,010.0 ft (307.85 m). Water is received from Cliff Lake, Lebanon Lake, and Toronto Reservoir. Records furnished by Orange and Rockland Utilities, Inc.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 1,461.6 mil ft^3 (41.4 hm^3) Mar. 14, 1977, elevation, 1,071.8 ft (326.68 m); minimum (after first filling), -141.4 mil ft^3 (4.00 hm^3) Dec. 2, 1938, elevation, 987.5 ft (300.99 m).

EXTREMES FOR CURRENT YEAR: Maximum contents, 1,307 mil ft^3 (37.0 hm^3) Apr. 5, elevation, 1,068.0 ft (325.53 m); minimum, 869.9 mil ft^3 (24.6 hm^3) Mar. 12, elevation, 1,055.8 ft (321.81 m).

01433100 TORONTO RESERVOIR.--Lat 41°37'15", long 74°49'55", Sullivan County, NY, Hydrologic Unit 02040104, at dam on Black Lake Creek, and 2.5 mi (4.0 km) southeast of village of Black Lake, NY. DRAINAGE AREA, 23.2 mi^2 (60.1 km^2). PERIOD OF RECORD, January 1926 to current year. REVISED RECORDS, WSP 1552: 1951-54. WSP 1702: 1959(M). Nonrecording gage. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Orange and Rockland Utilities, Inc.). All capacity figures given herein are based on zero storage at minimum operating pool level, 1,165.0 ft (355.09 m).

Reservoir is formed by an earthfill dam completed July 24, 1926; storage began Jan. 13, 1926. Usable capacity, 1,098.2 mil ft^3 (31.1 hm^3) between elevations 1,165.0 ft (355.09 m), minimum operating pool, and operating pool, about 26.8 mil ft^3 (0.759 hm^3). Reservoir is used for storage of water for power. Figures given herein represent contents above 1,165.0 ft (355.09 m). Records furnished by Orange and Rockland Utilities, Inc.

EXTREMES FOR PERIOD OF RECORD: Maximum contents observed, 1,171.2 mil ft^3 (33.2 hm^3) July 20, 1945, elevation, 1,222.0 ft (372.47 m). minimum observed (after first filling), -26.8 mil ft^3 (0.759 hm^3) Nov. 15, 1928, elevation, 1,144.5 ft (348.84 m).

EXTREMES FOR CURRENT YEAR: Maximum contents observed, 1,063 mil ft^3 (30.1 hm^3) June 25, elevation, 1,219.0 ft (371.55 m); minimum observed, 214.7 mil ft^3 (6.08 hm^3) Sept. 30, elevation, 1,185.2 ft (361.25 m).

01433200 CLIFF LAKE.--Lat 41°35'00", long 74°47'40", Sullivan County, NY, Hydrologic Unit 02040104, at dam on Black Lake Creek, and 2.5 mi (4.0 km) northwest of Fowlersville, NY. DRAINAGE AREA, 6.46 mi^2 (16.7 km^2) excluding area above Toronto Reservoir. PERIOD OF RECORD, January 1939 to current year. REVISED RECORDS, WSP 1552: 1951-54. WRD-NY 1975: 1974(m). Nonrecording gage. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Orange and Rockland Utilities, Inc.). All capacity figures given herein are based on zero storage at minimum operating pool level, 1,043.3 ft (318.0 m).

Reservoir is formed by a concrete gravity-type dam; storage began Jan. 6, 1939. Usable capacity, 136.06 mil ft^3 (3.85 hm^3) between elevations 1,043.3 ft (318.00 m), minimum operating pool, and 1,072.0 ft (326.75 m), top of permanent flashboards. Capacity below elevation 1,043.3 ft (318.00 m), minimum operating pool, about 6.54 mil ft^3 (0.185 hm^3). Reservoir is used for storage of water for power. Water is received from Toronto and Lebanon Lake reservoirs and is discharged through a tunnel into Swinging Bridge Reservoir. Figures given herein represent contents above 1,043.3 ft (318.00 m). Records furnished by Orange and Rockland Utilities, Inc.

EXTREMES FOR PERIOD OF RECORD: Maximum contents observed, 145.44 mil ft^3 (4.12 hm^3) July 30, 31, 1945, elevation, 1,073.1 ft (327.08 m); minimum observed (after first filling), about 6.54 mil ft^3 (0.185 hm^3) Mar. 16, 1963, elevation, 1,038.0 ft (316.38 m).

EXTREMES FOR CURRENT YEAR: Maximum contents observed, 121.3 mil ft^3 (3.44 hm^3) July 9, elevation, 1,070.2 ft (326.20 m); minimum observed, 34.1 mil ft^3 (0.966 hm^3) Mar. 12, elevation, 1,055.6 ft (321.75 m).

01435900 NEVERSINK RESERVOIR.--Lat 41°49'40", long 74°38'21", Sullivan County, NY, Hydrologic Unit 02040104, at a gate-house at Neversink Dam on Neversink River, and 2 mi (3 km) southwest of Neversink, NY. DRAINAGE AREA, 91.8 mi^2 (238 km^2). PERIOD OF RECORD, June 1953 to current year. GAGE, nonrecording gage read daily at 0900. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Board of Water Supply, City of New York).

Reservoir is formed by an earthfill rockfaced dam; storage began June 2, 1953. Usable capacity 34,941 mil gal (132.25 hm^3) between minimum operating level, elevation, 1,319.0 ft (402 m) and crest of spillway, elevation, 1,440.0 ft (438.9 m). Capacity at crest of spillway, 37,146 mil gal (140.6 hm^3); at minimum operating level, 2,205 mil gal (8.35 hm^3); dead storage below diversion sill and outlet sill at elevation 1,314.0 ft (400.5 m), 1,680 mil gal (6.36 hm^3). Figures given herein represent total contents. Reservoir impounds water for diversion through Neversink-Grahamsville Tunnel to Rondout Reservoir on Rondout Creek, in Hudson River basin, for water supply of City of New York (see Delaware River Basin, diversions); for release during periods of low flow in the lower Delaware River basin, as directed by the Delaware River Master; and for conservation release. No diversion prior to Dec. 3, 1953. Records furnished by Bureau of Water Resources Development and Department of Environmental Protection, City of New York.

EXTREMES FOR PERIOD OF RECORD: Maximum contents observed, 37,978 mil gal (143.7 hm^3) Apr. 25, 1961, elevation, 1,441.67 ft (439.421 m); minimum observed (after first filling), 1,985 mil gal (7.513 hm^3) Nov. 25, 1964, elevation, 1,316.98 ft (401.415 m).

EXTREMES FOR CURRENT YEAR: Maximum contents observed, 37,419 mil gal (141.6 hm^3) Apr. 20, elevation, 1,440.55 ft (439.080 m); minimum observed, 18,196 mil gal (68.9 hm^3) Oct. 26, elevation, 1,393.68 ft (424.794 m).

01447780 FRANCIS E. WALTER RESERVOIR (formerly published as Bear Creek Reservoir).--Lat 41°06'45", long 75°43'15", Luzerne County, PA, Hydrologic Unit 02040106, at dam on Lehigh River, 2,200 ft (670 m) downstream from Bear Creek and 5 mi (8 km) northwest of White Haven. DRAINAGE AREA, 289 mi^2 (749 km^2). PERIOD OF RECORD, February 1961 to current year. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

Reservoir formed by an earthfill embankment covered with a rock shell, with concrete spillway at elevation 1,450.0 ft (441.96 m); storage began Feb. 17, 1961; water in reservoir first reached conservation pool elevation in June 1961. Total capacity at elevation 1,450.0 ft (441.96 m) is 110,700 acre-ft (136 hm^3) of which 108,700 acre-ft (134 hm^3) is controlled storage above elevation 1,300.0 ft or 396.24 m (conservation pool). Dead storage is 2,000 acre-ft (2.47 hm^3). Reservoir is used for flood control and recreation. Figures given herein represent total contents. Flow regulated by three gates and low flow by-pass system. Records furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 42,600 acre-ft (52.5 hm^3) June 26, 1972, elevation, 1,398.20 ft (426.171 m); minimum (after establishment of conservation pool), 981 acre-ft (1.21 hm^3) July 6, 1982, elevation, 1,287.70 ft (392.490 m).

EXTREMES FOR CURRENT YEAR: Maximum contents, 38,950 acre-ft (48.0 hm^3) Oct. 28, elevation, 1,394.16 ft (424.940 m); minimum, 980 acre-ft (1.21 hm^3) July 6, elevation, 1,287.70 ft (392.490 m).

RESERVOIRS IN DELAWARE RIVER BASIN--Continued

01449400 PENN FOREST RESERVOIR.--Lat 40°55'45", long 75°33'45", Carbon County, PA, Hydrologic Unit 02040106, at dam on Wild Creek near Hatchery, PA, 0.7 mi (1.1 km) upstream from Hatchery, 2.6 mi (4.2 km) upstream from Wild Creek Dam, 4.4 mi (7.1 km) upstream from mouth, and 10 mi (16 km) northeast of Palmerton. DRAINAGE AREA, 16.5 mi^2 (42.7 km^2). PERIOD OF RECORD, October 1958 to current year. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by city of Bethlehem).

Reservoir formed by an earthfill dam, with ungated concrete spillway at elevation 1,000.00 ft (304,800 m); storage began in October 1958. Capacity at elevation 1,000.00 ft (304.800 m) is 19,980 acre-ft (24.6 hm^3). Reservoir is used for municipal water supply. Figures given herein represent total contents. Regulation is done by valves on pipe through dam. Records furnished by city of Bethlehem. Figures given herein include diversion, since October 1969, from Tunkhannock Creek basin into Wild Creek basin.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 20,520 acre-ft (25.3 hm^3) Mar. 28, 1978, elevation, 1,000.92 ft (305.080 m); minimum, 176 acre-ft (0.217 hm^3) Oct. 6, 1965, elevation, 902.40 ft (275.052 m).

EXTREMES FOR CURRENT YEAR: Maximum contents, 20,320 acre-ft (25.1 hm^3) June 30, elevation, 1,000.58 ft (304.977 m); minimum, 11,730 acre-ft (14.5 hm^3) Oct. 27, elevation, 979.15 ft (298.445 m).

01449700 WILD CREEK RESERVOIR.--Lat 40°53'50", long 75°33'50", Carbon County, PA, Hydrologic Unit 02040106, at dam on Wild Creek near Hatchery, PA, 1.6 mi (2.6 km) upstream from mouth, 2.4 mi (3.9 km) south of Hatchery, and 7.5 mi (12 km) northeast of Palmerton. DRAINAGE AREA, 22.2 mi^2 (57.5 km^2). PERIOD OF RECORD, January 1941 to current year. Nonrecording gage. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by city of Bethlehem).

Reservoir formed by earthfill dam, with concrete ungated spillway at elevation 820.00 ft (249.936 m); storage began January 27, 1941; water in reservoir first reached minimum pool elevation in February 1941. Total capacity at elevation 820.00 ft (249.936 m) is 12,500 acre-ft (15.4 hm^3) of which 12,000 acre-ft (15 hm^3) is controlled storage. Reservoir is used for municipal water supply. Figures given herein represent usable contents. Regulation is accomplished by valves on pipe through dam. Records furnished by city of Bethlehem. Since October 1969 the basin upstream has received diversion from Tunkhannock Creek basin.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 12,880 acre-ft (15.9 hm^3) May 23, 1942, elevation, 822.93 ft (250.829 m); minimum (after first filling), 2,680 acre-ft (3.30 hm^3) Nov. 15, 1966, elevation, 774.10 ft (235.946 m).

EXTREMES FOR CURRENT YEAR: Maximum contents, 12,170 acre-ft (15.0 hm^3) July 1, elevation, 820.56 ft (250.107 m); minimum, 9,640 acre-ft (11.9 hm^3) Sept. 28, elevation, 811.16 ft (247.242 m).

01449790 BELTZVILLE LAKE.--Lat 40°50'56", long 75°38'19", Carbon County, PA, Hydrologic Unit 02040106, at dam on Pohopoco Creek, 0.45 mi (0.72 km) upstream from gaging station on Pohopoco Creek, 0.55 mi (0.88 km) upstream from Sawmill Run and 2.3 mi (3.7 km) northeast of Parryville. DRAINAGE AREA, 96.3 mi^2 (249.4 km^2). PERIOD OF RECORD, February 1971 to current year. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

Reservoir formed by an earth and rockfill dam with ungated, partially lined spillway at elevation 651.00 ft (198.425 m); storage began Feb. 8, 1971. Capacity at elevation 651.00 ft (198.425 m) is 68,300 acre-ft (84.2 hm^3). Ordinary minimum (conservation) pool elevation, 628.00 ft (191.414 m), capacity, 41,250 acre-ft (50.9 hm^3). Dead storage is 1,390 acre-ft (1.71 hm^3). Reservoir is used for recreation, flood control, low flow augmentation and water supply. Figures given herein represent total contents. Regulation is accomplished by a multi-level water-quality outlet system and two flood-control gates. Records furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD: Maximum contents 49,730 acre-ft (61.3 hm^3) Jan. 29, 1976, elevation, 636.30 ft (193.944 m); minimum, 16,343 acre-ft (20.2 hm^3) Jan. 31, Feb 1, 1981, elevation, 591.41 ft (180.262 m).

EXTREMES FOR CURRENT YEAR: Maximum contents 43,200 acre-ft (53.2 hm^3) June 30, elevation, 630.00 ft (192.024 m); minimum, 36,390 acre-ft (44.8 hm^3) Sept. 18, elevation, 622.63 ft (189.778 m).

01455400 LAKE HOPATCONG.--Lat 40°55'00", long 74°39'50", Morris County, Hydrologic Unit 02040105, in gatehouse of Lake Hopatcong Dam on Musconetcong River at Landing. DRAINAGE AREA, 25.3 mi^2 (65.5 km^2), revised. PERIOD OF RECORD, February 1887 to current year. Monthend contents only prior to October 1950, published in WSP 1302. GAGE, water-stage recorder. Prior to June 24, 1928, daily readings obtained by measuring from high-water mark to water surface converted to gage height, present datum. Datum of gage is 914.57 ft (278.761 m).

Lake is formed by concrete spillway and earthfill dam completed about 1828. Crest of spillway was lowered 0.11 ft (0.034 m) in 1925. Usable capacity, 7,459,000,000 gal (28.23 hm^3) between (gage height -2.6 ft or -0.792 m, sills of gates and 9.00 ft or 2.743 m, crest of spillway). Flow regulated by four gates (3 by 5 ft or 0.914 by 1.524 m), also by one 24-inch (0.610 m) pipe with gate valve to recreation fountain 250 ft (76.2 m) downstream from dam. Dead storage. about 8,117,000,000 gal (30.72 hm^3). Figures given herein represent usable capacity. Lake used for recreation.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 8,532,000,000 gal (32.29 hm^3) June 24, 1972, gage height, 10.27 ft (3.130 m); minimum, 1,525,000,000 gal (5.77 hm^3) Dec. 29, 1960, gage height, 0.65 ft (0.198 m).

EXTREMES FOR CURRENT YEAR: Maximum contents, 7,863,000,000 gal (29.76 hm^3) June 17-19, gage height, 9.48 ft (2.90 m); minimum contents, 5,521,000,000 gal (20.90 hm^3) Sept. 30, gage height, 6.60 ft (2.012 m).

01469200 STILL CREEK RESERVOIR.--Lat 40°51'25", long 75°59'30". Schuylkill County, PA, Hydrologic Unit 02040106, at dam on Still Creek, 1 mi (1.6 km) upstream from mouth and 2.3 mi (3.7 km) north of Hometown, PA. DRAINAGE AREA, 8.5 mi^2 (22.0 km^2). PERIOD OF RECORD, January 1933 to current year. Nonrecording gage. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Panther Valley Water Co.).

Reservoir formed by earth fill dam, with ungated concrete spillway at elevation 1,182.00 ft (360.274 m); storage began in February 1933. Capacity at elevation, 1,182.00 ft (360.274 m) is 8,290 acre-ft (10.2 hm^3). Reservoir is used for municipal water supply. Figures given herein represent total contents. Regulation is accomplished by valves on pipe through dam. Records furnished by Panther Valley Water Co.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 8,570 acre-ft (10.6 hm^3) Oct. 15, 1955, elevation, 1,182.92 ft (360.554 m), but may have been greater during 1950 and 1951 water years; minimum (after initial filling), 588 acre-ft (0.725 hm^3) Dec. 8, 1944, elevation, 1,136.70 ft (346.466 m).

EXTREMES FOR CURRENT YEAR: Maximum contents, 8,410 acre-ft (10.4 hm^3) June 7, elevation, 1,182.40 ft (360.396 m); minimum, 7,400 acre-ft (9.12 hm^3) Dec. 9, elevation, 1,178.90 ft (359.329 m).

01470870 BLUE MARSH LAKE.--Lat 40°22'45", long 76°01'59", Berks County, Hydrologic Unit 02040203, at dam on Tulpehocken Creek, 0.8 mi (1.3 km) upstream from gaging station on Tulpehocken Creek, 1.0 mi (1.6 km) northeast of Blue Marsh, 1.9 mi (3.1 km) upstream from Reber's Bridge, and 5.1 mi (8.2 km) southeast of Bernville. DRAINAGE AREA, 175 mi^2 (453 km^2). PERIOD OF RECORD, April 1979 to current year. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

Reservior formed by earthfill dam, with concrete ungated spillway at elevation 307.00 ft (93.574 m). Storage began April 23, 1979. Capacity at elevation, 307.00 ft (93.574 m) is 50,000 acre-ft (61.6 hm^3). Dead storage is 3,000 acre-ft (3.70 hm^3). Reservoir is used for flood control, water supply, and recreation. Figures herein represent total contents. Records furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 29,580 acre-ft (36.5 hm^3) Feb. 5, 1982, elevation, 295.31 ft (90.010 m); minimum, 17,528 acre-ft (21.6 hm^3) Apr. 8, 25, elevation, 284.90 ft (86.838 m).

EXTREMES FOR CURRENT YEAR: Maximum contents, 29,580 acre-ft (36.5 hm^3) Feb. 5, elevation, 295.31 ft (90.010 m); minimum, 17,530 acre-ft (21.6 hm^3) Apr. 8, elevation, 284.90 ft (86.838 m).

RESERVOIRS IN DELAWARE RIVER BASIN--Continued

01472200 GREEN LANE RESERVOIR.--Lat 40°20'30", long 75°28'45", Montgomery County, PA, Hydrologic Unit 02040203, at dam on Perkiomen Creek at Green Lane, PA, 0.4 mi (0.6 km) west of Green Lane and 2.1 mi (3.4 km) upstream from Unami Creek. DRAINAGE AREA, 70.9 mi² (183.6 km²). PERIOD OF RECORD, December 1956 to current year. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Philadelphia Suburban Water Co.).

Reservoir formed by concrete, gravity-type dam, with ungated spillway at elevation 286.00 ft (87.173 m); storage began December 21, 1956. Capacity at spillway level, elevation 286.00 ft (87.173 m), 13,430 acre-ft (16.6 hm³). Reservoir is used for municipal water supply. Figures given herein represent total contents. Regulation is accomplished by valves on pipe through dam. Records furnished by Philadelphia Suburban Water Co.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 17,030 acre-ft (21.0 hm³) June 23, 1972, elevation, 290.05 ft (88.407 m); minimum (after first filling), 1,270 acre-ft (1.57 hm³) Aug. 25, 1957, elevation, 251.60 ft (76.688 m).

EXTREMES FOR CURRENT YEAR: Maximum contents, 14,230 acre-ft (17.5 hm³) June 16, elevation, 286.90 ft (87.447 m); minimum, 9,930 acre-ft (12.2 hm³) Oct. 22, elevation, 281.28 ft (85.734 m).

MONTHEND ELEVATION AND CONTENTS, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

Date	Elevation (feet)	Contents (million gallons)	Change in contents (equivalent in ft³/s)	Elevation (feet)	Contents (million gallons)	Change in contents (equivalent in ft³/s)	Elevation (feet)	Contents (acre-feet)	Change in contents (equivalent in ft³/s)
	01416900 PEPACTON RESERVOIR ‡			01424997 CANNONSVILLE RESERVIOR ‡			01428900 PROMPTON RESERVOIR †		
Sept. 30	1,235.03	79,700	-	1,100.91	37,083	-	1,130.19	4,980	-
Oct. 31	1,236.40	81,450	+87.3	1,103.78	39,926	+142	1,133.92	6,550	+25.5
Nov. 30	1,236.59	81,694	+12.6	1,111.52	48,079	+420	1,135.60	7,200	+10.9
Dec. 31	1,237.31	82,625	+46.5	1,117.22	54,539	+322	1,135.65	7,220	+.3
CAL YR 1981	-	-	+98.0	-	-	+65.3	-	-	+5.1
Jan. 31	1,244.92	92,885	+512	1,118.37	55,881	+67.0	1,135.64	7,220	0
Feb. 28	1,256.00	109,176	+900	1,130.14	70,441	+840	1,135.68	7,230	+.2
Mar. 31	1,266.23	125,618	+821	1,147.90	95,424	+1,247	1,136.31	7,450	+3.6
Apr. 30	1,280.33	150,410	+1,279	1,150.90	100,066	+239	1,126.60	3,950	-58.8
May 31	1,276.61	143,621	-339	1,149.70	98,162	-95.0	1,125.89	3,750	-3.3
June 30	1,279.38	148,659	+260	1,151.13	100,436	+117	1,126.21	3,840	+1.5
July 31	1,274.42	139,712	-447	1,142.89	87,963	-623	1,125.48	3,630	-3.4
Aug. 31	1,266.26	125,669	-701	1,127.68	67,301	-1,031	1,125.49	3,640	+.2
Sept. 30	1,257.39	111,335	-739	1,109.29	45,642	-1,117	1,125.24	3,570	-1.2
WTR YR 1982	-	-	+134	-	-	+36.3	-	-	-1.9

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (equivalent in ft³/s)	Elevation (feet)	Contents (acre-feet)	Change in contents (equivalent in ft³/s)	Elevation (feet)	Contents (million cu ft)	Change in contents (equivalent in ft³/s)
	01429400 GENERAL EDGAR JADWIN RESERVOIR †			01431700 LAKE WALLENPAUPACK †			01433000 SWINGING BRDIGE RESERVOIR †		
Sept. 30	989.46	550	-	1,174.60	72,720	-	1,064.9	1,188	-
Oct. 31	989.46	550	0	1,174.90	74,280	+25.4	1,064.5	1,173	-5.6
Nov. 30	989.50	560	+.2	1,173.50	67,000	-122.4	1,060.6	1,031	-54.5
Dec. 31	989.46	550	-.2	1,175.90	79,570	+204.4	1,059.7	1,000	-11.7
CAL YR 1981	-	-	+.3	-	-	+22.4	-	-	-3.0
Jan. 31	989.46	550	0	1,178.80	95,120	+252.9	1,057.8	936	-24.1
Feb. 28	989.46	550	0	1,182.60	115,800	+372.3	1,057.8	936	0
Mar. 31	989.46	550	0	1,186.10	135,400	+318.8	1,067.3	1,280	+129
Apr. 30	989.46	550	0	1,185.90	134,200	-20.2	1,065.4	1,206	-28.2
May 31	989.46	550	0	1,185.40	131,400	-45.5	1,061.8	1,074	-49.5
June 30	989.46	550	0	1,184.30	125,300	-102.5	1,064.6	1,176	+39.5
July 31	989.46	550	0	1,182.40	114,700	-172.1	1,059.2	983	-72.2
Aug. 31	989.46	550	0	1,181.50	109,800	-79.7	1,062.5	1,099	+43.4
Sept. 30	989.46	550	0	1,180.90	106,500	-55.5	1,060.8	1,038	-23.4
WTR YR 1982	-	-	0	-	-	+46.7	-	-	-4.7

RESERVOIRS IN DELAWARE RIVER BASIN--Continued

MONTHEND ELEVATION AND CONTENTS, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

Date	Elevation (feet)	Contents (million cu ft)	Change in contents (equivalent in ft^3/s)	Elevation (feet)	Contents (million cu ft)	Change in contents (equivalent in ft^3/s)	Elevation (feet)	Contents (million cu ft)	Change in contents (equivalent in ft^3/s)
	01433100 TORONTO RESERVOIR †			01433200 CLIFF LAKE RESERVOIR †			01435900 NEVERSINK RESERVOIR ‡		
Sept. 30	1,190.7	312	-	1,066.0	90.3	-	1,398.70	19,889	-
Oct. 31	1,185.5	220	-34.3	1,065.0	83.7	-2.5	1,397.29	19,404	-24.2
Nov. 30	1,188.2	266	+17.9	1,060.4	56.1	-10.6	1,397.58	19,503	+5.1
Dec. 31	1,191.2	321	+20.6	1,059.7	52.4	-1.4	1,397.27	19,397	-5.3
CAL YR 1981	-	-	+7.0	-	-	-.4	-	-	+62.2
Jan. 31	1,195.4	409	+32.7	1,058.0	44.2	-3.1	1,400.40	20,483	+54.2
Feb. 28	1,200.0	516	+44.4	1,058.2	45.1	+.4	1,412.36	24,941	+246
Mar. 31	1,207.3	706	+70.9	1,067.8	103	+21.6	1,421.07	28,491	+177
Apr. 30	1,215.9	958	+97.2	1,065.8	88.9	-5.4	1,439.05	36,678	+422
May 31	1,217.0	995	+13.6	1,062.0	65.1	-8.9	1,429.83	32,324	-217
June 30	1,218.0	1,029	+13.1	1,066.7	95.1	+11.6	1,434.55	34,512	+113
July 31	1,209.0	753	-103	1,064.9	83.0	-4.5	1,428.90	31,902	-130
Aug. 31	1,194.4	387	-137	1,066.4	93.0	+3.7	1,420.72	28,344	-178
Sept. 30	1,185.2	215	-66.5	1,060.9	58.8	-13.2	1,411.56	24,628	-192
WTR YR 1982	-	-	-3.1	-	-	-1.0	-	-	+20.1

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (equivalent in ft^3/s)	Elevation (feet)	Contents (acre-feet)	Change in contents (equivalent in ft^3/s)	Elevation (feet)	Contents (acre-feet)	Change in contents (equivalent in ft^3/s)
	01447780 FRANCIS E. WALTER LAKE ‡			01449400 PENN FOREST RESERVOIR †			01449700 WILD CREEK RESERVOIR †		
Sept. 30	1,392.05	37,200	-	982.71	12,910	-	812.26	9,950	-
Oct. 31	1,392.64	37,672	+7.7	979.50	11,840	-17.4	815.39	10,810	+14.0
Nov. 30	1,370.01	21,426	-273	980.54	12,150	+5.2	815.25	10,770	-0.7
Dec. 31	1,370.21	21,546	+2.0	982.02	12,670	+8.5	815.23	10,770	0
CAL YR 1981	-	-	+27.1	-	-	+7.0	-	-	+1.4
Jan. 31	1,368.45	20,518	-16.7	986.83	14,420	+28.5	815.35	10,800	+.5
Feb. 28	1,369.65	21,210	+12.5	990.25	15,750	+23.9	816.08	11,000	+3.6
Mar. 31	1,370.27	21,582	+6.1	999.09	19,570	+62.1	816.98	11,250	+4.1
Apr. 30	1,368.51	20,550	-17.3	1,000.12	20,050	+8.1	820.32	12,100	+14.3
May 31	1,352.17	12,848	-125	1,000.19	20,090	+.7	820.30	12,090	-.2
June 30	1,298.00	1,780	-186	1,000.58	20,320	+3.9	820.54	12,160	+1.2
July 31	1,299.69	1,966	+3.0	1,000.11	20,040	-4.6	818.79	11,750	-6.7
Aug. 31	1,300.00	2,000	+.6	1,000.09	20,030	-.2	815.81	10,920	-13.5
Sept. 30	1,304.08	2,409	+6.9	999.58	19,790	-4.0	811.69	9,790	-19.0
WTR YR 1982	-	-	-48.1	-	-	+9.5	-	-	-.2

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (equivalent in ft^3/s)	Gage Height (feet)	Contents (million gallons)	Change in contents (equivalent in ft^3/s)	Elevation (feet)	Contents (acre-feet)	Change in contents (equivalent in ft^3/s)
	01449790 BELTZVILLE LAKE †			01455400 LAKE HOPATCONG †			01469200 STILL CREEK RESERVOIR †		
Sept. 30	628.08	41,330	-	8.86	7,343	-	1,180.50	7,850	-
Oct. 31	628.19	41,430	+1.6	8.82	7,310	-1.6	1,179.80	7,650	-3.3
Nov. 30	628.02	41,270	-2.7	9.08	7,526	+11.1	1,179.20	7,480	-2.9
Dec. 31	628.00	41,250	-.3	7.74	6,425	-54.9	1,179.90	7,680	+3.3
CAL YR 1981	-	-	+33.5	-	-	+1.5	-	-	+2.1
Jan. 31	627.70	40,960	-4.7	7.36	6,120	-15.2	1,181.50	8,140	+7.5
Feb. 28	627.84	41,100	+2.5	7.46	6,200	+4.4	1,182.00	8,290	+2.7
Mar. 31	627.89	41,150	+.8	7.76	6,442	+12.1	1,182.20	8,350	+1.0
Apr. 30	628.01	41,260	+1.8	9.34	7,745	+67.2	1,182.10	8,320	-.5
May 31	629.07	42,270	+16.4	8.91	7,384	-18.0	1,182.00	8,290	-.5
June 30	629.93	43,130	+14.5	9.45	7,838	-23.4	1,182.30	8,380	+1.5
July 31	627.88	41,140	-32.4	9.10	7,543	-14.7	1,181.90	8,260	-2.0
Aug. 31	627.98	41,230	+1.5	9.04	7,493	-2.5	1,181.80	8,230	-.5
Sept. 30	623.04	36,730	-75.6	6.60	5,521	-102	1,181.40	8,110	-2.0
WTR YR 1982	-	-	-6.4	-	-	-7.7	-	-	+.4

RESERVOIRS IN DELAWARE RIVER BASIN--Continued

MONTHEND ELEVATION AND CONTENTS, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (equivalent in ft^3/s)	Elevation (feet)	Contents (area-feet)	Change in contents (equivalent in ft^3/s)
	01470870	BLUE MARSH LAKE †		01472200	GREEN LANE RESERVOIR †	
Sept. 30	289.88	22,760	-	282.24	10,520	-
Oct. 31	290.37	23,330	+9.3	281.66	10,160	-5.9
Nov. 30	289.95	22,840	-8.2	281.32	9,950	-3.5
Dec. 31	290.15	23,070	+3.7	285.21	12,730	+45.2
CAL YR 1981	-	-	+6.3	-	-	+2.8
Jan. 31	289.90	22,780	-4.7	285.91	13,350	+10.1
Feb. 28	290.24	23,180	+7.2	285.90	13,340	-.2
Mar. 31	285.54	18,150	-81.8	286.05	13,480	+2.3
Apr. 30	288.15	20,840	+45.2	286.06	13,490	+.2
May 31	291.52	24,690	+62.6	286.15	13,560	+1.1
June 30	290.23	23,170	-25.5	285.98	13,420	-2.4
July 31	290.00	22,900	-4.4	285.88	13,330	-1.5
Aug. 31	290.11	23,030	+2.1	285.70	13,170	-2.6
Sept. 30	289.96	22,850	-3.0	285.25	12,770	-6.7
WTR YR 1982	-	-	+.1	-	-	+3.1

‡ Elevation at 0900 hours on first day of following month.
† Elevation or gage height at 2400 hours.
a Observed.
e Estimated.
* Elevation at 0900 hours.

DIVERSIONS AND WITHDRAWALS

WITHDRAWALS FROM THE DELAWARE RIVER BASIN

01415200 Diversion from Pepacton Reservoir, NY, on East Branch Delaware River to Rondout Reservoir on Rondout Creek, in Hudson River basin, for municipal supply of city of New York. No diversion prior to Jan. 6, 1955. Records furnished by Board of Water Supply and Department of Water Resources, city of New York. REVISIONS (Water Years).--WRD-NY 1972: 1970.

REVISED RECORDS, WRD NY 1971: 1970. Revised figures of diversion for the water year 1980, superseding those published in the report for 1980 are given herein.

01423900 Diversion from Cannonsville Reservoir, NY, on West Branch Delaware River to Rondout Reservoir on Rondout Creek, in Hudson River basin, for municipal supply of city of New York. No diversion prior to Jan. 29, 1964. Records furnished by Board of Water Supply, city of New York.

REVISED RECORDS: Revised figures of diversion for the water year 1980, superseding those published in the report for 1980 are given herein.

01435800 Diversion from Neversink Reservoir, NY, on Neversink River to Rondout Reservoir on Rondout Creek, in Hudson River basin, for municipal supply of city of New York. No diversion prior to Dec. 3, 1953. Records furnished by Board of Water Supply and Department of Water Resources, city of New York.

REVISIONS: Revised figures of diversion for the water years 1976 and 1977, superseding those published in the reports for 1976 and 1977 are given herein.

01436520 Village of Woodridge, NY, diverts water from East Pond Reservoir, tributary to Neversink River, for municipal supply outside of basin. Records furnished by village of Woodridge.

01437360 Diversion from Bear Swamp Reservoir, NY, tributary to Neversink River, by the New York State Training School, Otisville, NY, for water supply outside of basin. Records furnished by Delaware River Basin Commission.

01447750 Diversion from Bear Creek, PA, tributary to Lehigh River, by Bear Creek Gas and Water Company for water supply outside of basin. Records furnished by Delaware River Basin Commission.

01448830 Diversion from Hazle Creek Watershed by Hazelton Joint Sewerage Authority for municipal water supply. Waste effluent from the municipal water system is released to the Susquehanna River. Records furnished by Delaware River Basin Commission.

01460500 Diversion by Delaware and Raritan Canal from Delaware River at Raven Rock, for municipal and industrial use. Water is discharged into the Raritan River at New Brunswick. Records of discharge are collected on the Delaware and Raritan Canal at Kingston, (see station 01460500). Canal was closed for repair from Oct. 30 to June 8.

WITHDRAWALS BY CITY OF NEW YORK

DIVERSION, IN CUBIC FEET PER SECOND, WATER YEARS OCTOBER 1975 TO SEPTEMBER 1977

Month	NEVERSINK RESERVOIR 01435800		NEVERSINK RESERVOIR 01435800
October	211		218
November	288		250
December	311		306
CAL YR 1975	293	CAL YR 1976	290
January	260		256
February	216		149
March	272		129
April	281		380
May	434		303
June	286		233
July	408		386
August	294		321
September	248		232
WTR YR 1976	293	WTR YR 1977	264

DIVERSION, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

Month	PEPACTON RESERVOIR 01415200	CANNONSVILLE RESERVOIR 01423900	NEVERSINK RESERVOIR 01435800
October	693	351	144
November	570	288	114
December	375	267	104
CAL YR 1981	499	386	117
January	0.15	582	90.8
February	0	396	11.7
March	352	395	103
April	242	2.06	277
May	531	234	349
June	368	168	98.0
July	693	376	157
August	696	208	153
September	696	3.46	158
WTR YR 1982	438	273	148

DIVERSIONS AND WITHDRAWALS--Continued

MISCELLANEOUS WITHDRAWALS FROM BASIN

	EAST POND RESERVOIR 01436520	BEAR SWAMP RESERVOIR *01437360	BEAR CREEK 01447750	HAZLE CREEK 01448830	DELAWARE & RARITAN CANAL 01460500	
October	.5	DATA NOT AVAILABLE	0	3.9	37.7	a52.2
November	.1		0	3.9	.03	a74.6
December	.1		0	3.9	0	a65.9
CAL YR 1981	.4		6.0	3.9	54.3	CAL YR 1980 a88.8
January	.3		0	3.7	0	a63.0
February	.4		0	3.9	0	a59.0
March	.3		2.2	3.9	0	a91.8
April	.2		14.5	3.6	0	a92.2
May	.4		3.3	3.9	0	a77.8
June	.5		0	3.4	34.2	a49.1
July	.6		0	3.9	27.0	a27.3
August	.6		0	3.3	17.5	a21.5
September	.5		0	4.0	26.2	a22.7
WTR YR 1982	.4		1.7	3.8	10.6	WTR YR 1981 a58.1

* Data not available this year but, from past records, withdrawal is approximately 0.5 ft^3/s (0.014 m^3/s).
a Corrected figures of diversion to Delaware and Raritan Canal for water year 1981, superseding those published in WDR-81-2.

DIVERSIONS WITHIN THE DELAWARE RIVER BASIN

01463480 Diversion from the Delaware River at the Morrisville Filtration Plant for municipal supply, by the Borough of Morrisville, PA. The water withdrawn at this site is returned to the basin after treatment, only slightly diminished by consumptive uses and losses in transmission. Records furnished by the Borough of Morrisville, PA.

01463490 Diversion from the Delaware River just above the Trenton gaging station for municipal supply by the city of Trenton, NJ. The water being withdrawn is returned to the basin after treatment only slightly diminished by consumptive uses and losses in transmission. Records furnished by the City of Trenton.
CORRECTION.--The station number for the diversion by the City of Trenton has been changed to 01463490 to prevent confusion with the gaging station.

01467030 Diversion from the Delaware River at the Torresdale Intake for municipal supply, by the City of Philadelphia, PA. The water being withdrawn at this intake is returned to the basin after treatment only slightly diminished by consumptive uses and losses in transmission. Records furnished by the Delaware River Basin Commission.

01474500 Diversion from the Schuylkill River at the Belmont and Queen Lanes Intakes for municipal supply, by the City of Philadelphia, PA. The water being withdrawn at these intakes is returned after treatment within the Delaware River basin only slightly diminished by consumptive uses and losses in transmission. Records furnished by the Delaware River Basin Commission.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

Month	WITHDRAWAL BOROUGH OF MORRISVILLE 01463480	WITHDRAWAL CITY OF TRENTON 01463490	WITHDRAWAL CITY OF PHILADELPHIA		
			DELAWARE RIVER TORRESDALE 01467030	SCHUYLKILL RIVER BELMONT 01474500	SCHUYLKILL RIVER QUEEN LANE 01474500
October	6.2	50.3	299	87.7	176
November	5.89	48.3	272	91.0	174
December	5.82	48.3	276	92.4	189
CAL YR 1981	6.30	50.5	308	98.3	175
January	5.93	52.2	297	99.5	178
February	5.85	56.3	288	99.2	171
March	5.68	49.4	274	91.3	171
April	5.88	47.5	278	91.4	156
May	5.93	50.1	293	89.0	160
June	6.30	49.5	298	95.9	161
July	6.55	58.1	344	103	173
August	6.15	56.0	311	100	159
September	5.95	55.1	308	98.2	147
WTR YR 1982	6.01	51.7	295	94.9	168

DIVERSIONS AND WITHDRAWALS--Continued

DIVERSIONS IMPORTED INTO BASIN

01367630 Water diverted from Morris Lake, tributary to the Wallkill River (Hudson River basin), by the Newton Water and Sewer Authority for municipal use. After use the water is released into the Paulins Kill (Delaware River basin). Records furnished by the Delaware River Basin Commission.

01578420 Water diverted from West Branch Octoraro Creek (Susquehanna River basin) at the McCray Plant of the Octoraro Water Co., for municipal use. After use the water is released into the Delaware River basin. Records furnished by the Delaware River Basin Commission.

01578450 Water diverted from Octoraro Lake (Susquehanna River basin) by Chester Water Authority for municipal use. After use the water is released into the Delaware River basin. Records furnished by the Delaware River Basin Commission.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

Month	MORRIS LAKE 01367630	OCTORARO CREEK	
		OCTORARO WATER CO. 01578420	CHESTER WATER AUTHORITY 01578450
October	1.4	1.9	49.0
November	1.4	1.9	44.1
December	1.4	1.8	44.1
CAL YR 1981	1.4	2.1	47.9
January	1.5	2.0	44.9
February	1.6	1.9	46.5
March	1.5	1.7	43.6
April	1.5	1.6	41.0
May	1.4	1.8	41.5
June	1.4	1.8	42.5
July	1.4	1.7	45.2
August	1.5	1.8	42.2
September	1.4	1.8	42.2
WTR YR 1982	1.4	1.8	43.9

As the number of streams on which streamflow information is likely to be desired far exceeds the number of stream-gaging stations feasible to operate at one time, the Geological Survey collects limited streamflow data at sites other than stream-gaging stations. When limited streamflow data are collected on a systematic basis over a period of years for use in hydrologic analyses, the site at which the data are collected is called a partial-record station. Data collected at these partial-record stations are usable in low-flow or floodflow analyses, depending on the type of data collected. In addition, discharge measurements are made at other sites not included in the partial-record program. These measurements are generally made in times of drought or flood to give better areal coverage to those events. Those measurements and others collected for some special reason are called measurements at miscellaneous sites.

Records collected at partial-record stations are presented in two tables. The first is a table of discharge measurements at low-flow partial-record stations, and the second is a table of annual maximum stage and discharge at crest-stage stations. Discharge measurements made at miscellaneous sites for both low flow and high flow are given in a third table.

Low-flow partial-record stations

Measurements of streamflow in New Jersey made a low-flow partial-record stations are given in the following table. Most of these measurements were made during periods of base flow when streamflow is primarily from ground-water storage. These measurements, when correlated with the simultaneous discharge of a nearby stream where continuous records are available, will give a picture of the low-flow potentiality of a stream. The column headed "Period of record" shows the water years in which measurements were made at the same, or practically the same, site.

Discharge measurements made at low-flow partial-record stations during water year 1982

Station number	Station name	Location	Drainage area (mi^2)	Period of record	Measurements	
					Date	Discharge (ft^3/s)
		Maurice River basin				
01411450	Still Run at Aura, NJ	Lat 39°40'23", long 75°07'50", Gloucester County, at bridge on Aura-Glassboro Road, 0.4 mi (0.6 km) east of Aura, 1.0 mi (1.6 km) upstream of Silver Lake, and 2.6 mi (4.2 km) southeast of Glassboro.	3.21 (8.31 km^2)	1966, 1976-82	9-16-82	.79
01411456	Little Ease Run near Clayton, NJ	Lat 39°39'32", long 75°04'04", Gloucester County, at bridge on Academy Road, 0.9 mi (1.4 km) west of Fries Mill, 1.3 mi (2.1 km) east of Clayton, and 1.4 mi (2.3 km) downstream from Beaverdam Branch.	9.77 (25.30 km^2)	1966, 1976-82	8-13-82 9-16-82	1.6 .69
01411462	Scotland Run at Franklinville, NJ	Lat 39°37'05", long 75°03'36", Gloucester County, at bridge on State Route 538, 0.9 mi (1.4 km) east of Franklinville, 2.7 mi (4.3 km) upstream of Malaga Lake, and 2.8 mi (4.5 km) southeast of Clayton.	14.8 (38.3 km^2)	1976-82	8-13-82 9-16-82	7.3 6.0
01411700	Muddy Run at Centerton, NJ	Lat 39°31'28", long 75°10'09", Salem County, 180 ft (55 m) downstream of unnamed right bank tributary, 200 ft (60 m) downstream of bridge on New Jersey Routes 540 and 553 in Centerton, and 4.7 mi (7.6 km) south of Elmer.	36.5 (94.6 km^2, Revised)	1976-82	8-13-82 9-17-82	13 11
01411950	Buckshutem Creek near Laurel Lake, NJ	Lat 39°20'51", long 75°03'47", Cumberland County, at bridge on State Route 555 (Dividing Creek Road), 1.3 mi (2.1 km) upstream of Gravelly Run, 1.8 mi (2.9 km) west of Laurel Lake, and 3.6 mi (5.2 km) southwest of Millville.	12.9 (33.4 km^2)	1976-77, 1980-82	8-13-82 9-16-82	.20 .09
01412120	Muskee Creek near Port Elizabeth, NJ	Lat 39°18'56", long 74°57'31", Cumberland County, at bridge on State Route 548, 1.3 mi (2.1 km) east of Port Elizabeth, 1.9 mi (3.1 km) upstream from mouth, and 2.8 mi (4.5 km) northeast of Mauricetown.	13.1 (33.9 km^2)	1969, 1976-82	8-13-82	9.0
		Cohansey River basin				
01412405	Cohansey River near Beals Mill, NJ	Lat 39°31'29", long 75°15'59", Cumberland County, at bridge on Beals Mill Road, 1,300 ft (400 m) downstream of Beals Mill and Bostwick Lake, and 1.6 mi (3.0 km) west of Deerfield Street.	9.44 (24.45 km^2)	1976-82	8-12-82 9-17-82	3.3 3.3

Discharge measurements made at low-flow partial-record stations during water year 1982--Continued

Station number	Station name	Location	Drainage area (mi^2)	Period of record	Measurements Date	Measurements Discharge (ft^3/s)
		Cohansey River basin--Continued				
01413010	Barrett Run near Bridgeton, NJ	Lat 39°26'58", long 75°15'42", Cumberland County, at bridge on Mary Elmer Drive, 1,800 ft (550 m) upstream from Mary Elmer Lake, and 2.1 mi (3.4 km) northwest of the intersection of State Routes 49 and 77 in Bridgeton.	7.02 (18.18 km^2)	1966, 1976-82	8-12-82 9-17-82	1.7 1.6
01413020	Indian Fields Branch at Bridgeton, NJ	Lat 39°26'04", long 75°13'08", Cumberland County, at bridge on Manheim Avenue in Bridgeton, 1,300 ft (400 m) upstream of East Lake.	4.64 (12.02 km^2)	1976-82	8-12-82 9-17-82	3.8 3.7
		Stow Creek basin				
01413080	Raccoon Ditch at Davis Mill, NJ	Lat 39°25'26", long 75°22'01", Cumberland County, at bridge on County Highway 90 at Davis Mill, 2.8 mi (4.5 km) upstream from mouth, and 4.3 mi (6.9 km) southwest of Shiloh.	3.19 (8.26 km^2)	1976-78, 1980-82	8-12-82	1.9
		Delaware River basin				
01443475	Trout Brook near Middleville, NJ	Lat 41°03'03", long 74°51'23", Sussex County, at bridge on County Highway 612, 0.4 mi (0.6 km) upstream from mouth, 0.5 mi (0.8 km) southeast of Middleville, and 5.1 mi (8.2 km) west of Newton.	24.0 (62.2 km^2)	1979-82	5-14-82 8-16-82	1.7 28
01445800	Honey Run near Ramseyburg, NJ	Lat 40°53'44", long 75°01'04", Warren County, at bridge on Hope-Delaware Road, 2.3 mi (3.7 km) northeast of Ramseyburg, 2.8 mi (4.5 km) southwest of Hope, and 3.1 mi (5.0 km) upstream from mouth.	2.21 (5.72 km^2)	1981-82	11-04-81 5-13-82 8-17-82 9-17-82	1.5 2.0 1.2 .42
01455200	Pohatcong Creek at New Village, NJ	Lat 40°42'57", long 75°04'20", Warren County, at bridge on Edison Road, 0.4 mi (0.6 km) southeast of New Village, and 4.3 mi (6.9 km) upstream from Merrill Creek.	33.3 (86.2 km^2, Revised)	1960-69‡, 1979-80, 1982	7-16-82	24
01455230	Merrill Creek at Coopersville, NJ	Lat 40°42'25", long 75°06'54", Warren County, at bridge on Lows Hollow Road at Coopersville, 0.9 mi (1.4 km) north of Stewartsville, 2.1 mi (3.4 km) upstream from mouth, and 3.3 mi (5.3 km) east of Phillipsburg.	3.85 (9.97 km^2)	1981-82	11-04-81 5-14-82 8-17-82 9-17-82	2.2 5.8 3.3 1.8
01455780	Lubbers Run at Lockwood, NJ	Lat 40°55'36", long 74°43'09", Sussex County, at bridge on U.S. Route 206 at Lockwood, 1.0 mi (1.6 km) upstream from mouth, and 1.5 mi (2.4 km) northwest of Stanhope.	16.3 (42.2 km^2)	1982	11-04-81 5-14-82 8-16-82 9-16-82	12 23 13 4.2
01465884	Sharps Run at Route 541 at Medford, NJ	Lat 39°54'18", long 74°49'30", Burlington County, at bridge on Route 541 (Argonne Highway) in Medford, 0.7 mi (1.1 km) upstream from mouth, 1.2 mi (1.9 km) northeast of Oliphants Mills, and 2.6 mi (4.2 km) northwest of Medford Lakes.	4.41 (11.42 km^2)	1982	11-12-81 5-12-82 8-17-82	1.1 1.5 .38
01465898	Little Creek near Lumberton, NJ	Lat 39°56'16", long 74°47'38", Burlington County, at bridge on Eayrestown Road, 0.6 mi (1.0 km) upstream from mouth, 1.9 mi (3.1 km) southeast of Lumberton, and 3.0 mi (4.8 km) northeast of Medford.	19.2 (49.7 km^2)	1982	11-12-81 5-12-82 8-17-82	7.3 22 .87

Discharge measurements made at low-flow partial-record stations during water year 1982--Continued

Station number	Station name	Location	Drainage area (mi^2)	Period of record	Measurements	
					Date	Discharge (ft^3/s)
		Delaware River basin--Continued				
01477100	Raccoon Creek near Mullica Hill, NJ	Lat 39°42'31", long 75°12'05", Gloucester County, at highway bridge on Cedar Grove-Richwood Road 0.6 mi (1.0 km) upstream from Miery Run, 1.0 mi (1.6 km) downstream from outlet of Ewan Lake, 2.5 mi (4.0 km) southeast of Mullica Hill, and 4.0 mi (6.4 km) southwest of Pitman.	10.1 (26.2 km^2)	1959-63, 1966, 1980, 1982	5-20-82	12
01483010	Deep Run near Alloway, NJ	Lat 39°32'34", long 75°21'18", Salem County, at bridge on Telegraph Road, 0.8 mi (1.3 km) upstream from Elkinton Mill Pond, 1.3 mi (2.1 km) south of Alloway, and 2.5 mi (4.0 km) northwest of Pecks Corner.	5.30 (13.73 km^2)	1979-82	8-12-82	3.9

‡ Operated as a continuous-record gaging station.

CREST-STAGE PARTIAL-RECORD STATIONS

The following table contains annual maximum discharges for crest-stage stations. A crest-stage gage is a device which will register the peak stage occurring between inspections of the gage. A stage-discharge relation for each gage is developed from discharge measurements made by indirect measurements of peak flow or by current meter. The date of the maximum discharge is not always certain but is usually determined by comparison with nearby continuous-record stations, weather records, or local inquiry. Only the maximum discharge for each water year is given. Information on some lower stages may have been obtained, and discharge measurements may have been made for purposes of establishing the stage-discharge relation, but these are not published herein. The years given in the period of record represent water years for which the annual maximum has been determined. The gage heights are heights on the upstream side of the bridge, above the dam or at the discontinued continuous-record gaging station unless otherwise noted.

ANNUAL MAXIMUM DISCHARGE AT CREST-STAGE PARTIAL-RECORD STATIONS

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Annual maximum: Date	Annual maximum: Gage height (feet)	Annual maximum: Discharge (ft^3/s)
		Cohansey River basin					
01412500	West Branch Cohansey River at Seeley, NJ	Lat 39°29'06", long 75°15'33", Cumberland County, on right bank 15 ft (4.6 m) upstream from county bridge, Highway 31, at Seeley, 450 ft (137 m) upstream from mouth and 4.1 mi (6.6 km) northwest of Bridgeton. Datum of gage is 42.23 ft (12.872 m) National Geodetic Vertical Datum of 1929.	2.58 (6.68 km^2, Revised)	1952-67‡, 1968-82	d5-12-81 7-23-82	2.54 3.54	d78 145
		Delaware River basin					
*01445000	Pequest River at Huntsville, NJ	Lat 40°58'52", long 74°46'36", (revised), Sussex County, on right bank, 20 ft (6.1 km) upstream from highway bridge in Huntsville, and 0.4 mi (0.6 km) downstream from East Branch. Datum of gage is 553.81 ft (168.801 m) National Geodetic Vertical Datum of 1929.	31.0 (80.3 km^2, Revised)	1940-62‡, 1963-82	2-04-82	3.49	195
01445430	Pequest River at Townsbury, NJ	Lat 40°51'06", long 74°56'02", Warren County, upstream of highway bridge in Townsbury, 2.8 mi (4.5 km) northeast of Pequest and 8.7 mi (13.9 km) west of Hackettstown. Altitude of gage is 480 ft (146 m) National Geodetic Vertical Datum of 1929 (from Topographic map).	92.5 (239.6 km^2)	1977-80‡, 1981-82	2-04-82	5.10	2,570
*01446000	Beaver Brook near Belvidere, NJ	Lat 40°50'40", long 75°02'48, Warren County, on right bank, 2,000 ft (610 m) upstream from mouth, and 2 mi (3 km) east of Belvidere. Datum of gage is 303.36 ft (92.464 m) National Geodetic Vertical Datum of 1929.	36.7 (95.1 km^2, Revised)	1922-61‡, 1963-82	1-04-82	h3.39	h355
*01455200	Pohatcong Creek at New Village, NJ	Lat 40°42'57", long 75°04'20", Warren County, at bridge on Edison Road, 0.4 mi (0.6 km) southeast of New Village, and 4.3 mi (6.9 km) upstream from Merrill Creek. Datum of gage is 308.32 ft (93.976 m) National Geodetic Vertical Datum of 1929.	33.3 (86.2 km^2, Revised)	1960-69‡, 1970-82	2-04-82	5.69	1,360
01455500	Musconetcong River at outlet of Lake Hopatcong, NJ	Lat 40°55'00", long 74°39'55", Morris County, on left bank just upstream of highway bridge 300 ft (91 m) downstream from Lake Hopatcong Dam in Landing. Datum of gage is 904.99 ft (275.841 m) National Geodetic Vertical Datum of 1929.	25.3 (65.5 km^2, Revised)	1929-75‡, 1976-82	19-13-82	3.52	240

CREST-STAGE PARTIAL-RECORD STATIONS

ANNUAL MAXIMUM DISCHARGE AT CREST-STAGE PARTIAL-RECORD STATIONS--CONTINUED

Station no.	Station name	Location	Drainage area (mi^2)	Period of record	Annual maximum		
					Date	gage height (feet)	Discharge (ft^3/s)
		Delaware River basin--Continued					
01456000	Musconetcong River near Hackettstown, NJ	Lat 40°53'10", long 74°48'00", (revised), Warren County, on right bank 75 ft (23 m) upstream from Saxton Falls Dam, 0.5 mi (0.8 km) upstream from Erie-Lackawanna Railway bridge, and 3.0 mi (4.8 km) northeast of Hackettstown. Datum of gage is 630.93 ft (192.307 m) National Geodetic Vertical Datum of 1929.	68.9 (178.5 km^2, Revised)	1921-73‡, 1974-82	2-03-82	2.40	690
01457500	Delaware River at Riegelsville, NJ	Lat 40°35'36", long 75°11'17", Warren County, at suspension bridge at Riegelsville, 600 ft (183 m) upstream from Musconetcong River (flow of which is included in the records for this station since Oct. 1, 1931). Datum of gage is 125.12 ft (38.137 m) National Geodetic Vertical Datum of 1929.	6,328 (16,390 km^2)	1906-71‡, 1972-82	4-05-82	13.64	52,000
01463610	Assunpink Creek at Edinburg, NJ	Lat 40°15'28", long 74°37'05", Mercer County, on left bank, downstream side of Old Trenton Road Bridge (Route 535), 0. 1 mi (1.6 km) west of Edinburg, 0.5 mi (0.8 km) upstream from Bridegroom Run and 3.0 mi (4.8 km) north of Robbinsville. Datum of gage is 63.46 ft (19.343 m) National Geodetic Vertical Datum of 1929.	25.0 (64.7 km^2)	1979-82	1-04-82	bf<5.46	g
01464400	Crosswicks Creek at New Egypt, NJ	Lat 40°04'03", long 74°31'57", Ocean County, at upstream side of bridge on State Route 528 in New Egypt, and 300 ft (91 m) downstream from Oakford Lake Dam. Datum of gage is 43.46 ft (13.247 m) National Geodetic Vertical Datum of 1929.	41.2 (106.7 km^2, Revised)	1968-82	6-17-82	20.22	798
01464515	Doctors Creek at Allentown, NJ	Lat 40°10'37", long 74°35'57", Monmouth County, at bridge on Breza Road in Allentown, and 0.8 mi (1.3 km) downstream from Conines Millpond dam. Datum of gage is 50.98 ft (15.539 m) National Geodetic Vertical Datum of 1929.	17.4 (45.1 km^2, Revised)	1968-82	6-17-82	b4.17	355
01464530	Blacks Creek at Mansfield Square, NJ	Lat 40°07'02", long 74°41'58", Burlington County, at bridge on Mansfield Square-Crosswicks Road, 0.4 mi (0.6 km) east of Mansfield Square, and 3.4 mi (5.5 km) upstream from mouth. Datum of gage is 12.44 ft (3.792 m) National Geodetic Vertical Datum of 1929.	19.7 (51.0 km^2)	1978-82	7-29-82	b8.83	980
01464538	Crafts Creek at Columbus, NJ	Lat 40°04'44", long 74°43'07", Burlington County, at bridge on Columbus-Mansfield road, 0.4 mi (0.6 km) north of Columbus, and 6.0 mi (9.6 km) northeast of Mount Holly. Datum of gage is 33.71 ft (10.275 m) National Geodetic Vertical Datum of 1929.	5.38 (13.93 km^2)	1978-82	7-29-82	b8.50	423

CREST-STAGE PARTIAL-RECORD STATIONS

ANNUAL MAXIMUM DISCHARGE AT CREST-STAGE PARTIAL-RECORD STATIONS--Continued

Station No.	Station name	Location	Drainage area (mi²)	Period of record	Annual maximum Date	Annual maximum Gage height (feet)	Annual maximum Discharge (ft³/s)
		Delaware River basin--Continued					
01464582	Assiscunk Creek near Columbus, NJ	Lat 40°03'13", long 74°44'34", Burlington County, at bridge on Petticoat Bridge Road, 1.7 mi (2.7 km) southwest of Columbus, 4.0 mi (6.4 km) northeast of Mount Holly, and 0.1 mi (0.2 km) downstream from Assiscunk Branch.	10.9 (28.2 km²)	1978-82	7-29-82	b7.17	460
01465850	South Branch Rancocas Creek at Vincentown, NJ	Lat 39°56'22", long 74°45'50", Burlington County, on left bank 150 ft (46 m) downstream from highway bridge on Lumberton-Vincentown road, 0.8 mi (1.3 km) west of Vincentown, 2.9 mi (4.7 km) southeast of Lumberton, and 3.1 mi (5.0 km) upstream from Southwest Branch. Datum of gage is 13.17 ft (4.014 m) National Geodetic Vertical Datum of 1929.	64.5 (167.1 km², Revised)	1962-75‡, 1976-82	4-28-82	5.92	522
01465882	Southwest Branch Rancocas Creek at Route 70 at Medford, NJ	Lat 39°54'16", long 74°48'48", (revised), Burlington County, at bridge on State Route 70, 0.6 mi (1.0 km) northeast of Medford, and 4.2 mi (6.8 km) upstream from mouth. Datum of gage is 20.72 ft (6.315 m) National Geodetic Vertical Datum of 1929.	47.9 (124.1 km²)	1975-82	5-29-82	b5.92	1,800
01467057	Pompeston Creek at Cinnaminson, NJ	Lat 40°00'11", long 74°59'00", Burlington County, at U.S. Route 130 bridge, 0.7 mi (1.1 km) northwest of Cinnaminson, 1.7 mi (2.7 km) upstream from mouth, and 2.1 mi (3.4 km) east of Palmyra. Datum of gage is 11.36 ft (3.463 m) National Geodetic Vertical Datum of 1929.	5.77 (14.94 km², Revised)	1975-82	5-29-82	b3.52	290
01467069	North Branch Pennsauken Creek near Moorestown, NJ	Lat 39°57'10", long 74°58'10", Burlington County, at bridge on Route 41 (Kings Highway) 1.7 mi (2.8 km) southwest of Moorestown. Datum of gage is 5.9 ft (1.80 m) National Geodetic Vertical Datum of 1929.	12.8 (33.2 km²)	1975-82	5-29-82	4.75	480
*01467160	North Branch Cooper River near Marlton, NJ	Lat 39°53'20", long 74°58'08", Camden County, at bridge on blacktop road to Springdale, 2.5 mi (4.0 km) west of Marlton. Datum of gage is 36.36 ft (11.083 m) National Geodetic Vertical Datum of 1929.	5.34 (13.83 km², Revised)	1964-82	7-28-82	b2.63	152
*01467305	Newton Creek at Collingswood, NJ	Lat 39°54'30", long 75°03'13", Camden County, at bridge on Park Avenue in Collingswood, 0.3 mi (0.5 km) east of Cuthbert Avenue. Datum of gage is 18.74 ft (5.712 m) National Geodetic Vertical Datum of 1929.	1.33 (3.44 km², Revised)	1964-82	5-29-82	3.04	142
01467317	South Branch Newton Creek at Haddon Heights, NJ	Lat 39°52'45", long 75°04'26", Camden County, at bridge on Haddon Heights Park in Haddon Heights, and 2.6 mi (4.2 km) south of Collingswood. Datum of gage is 23.34 ft (7.114 m) National Geodetic Vertical Datum of 1929.	0.63 (1.63 km²)	1964-82	5-29-82	3.08	34

CREST-STAGE PARTIAL-RECORD STATIONS

ANNUAL MAXIMUM DISCHARGE AT CREST-STAGE PARTIAL-RECORD STATIONS--Continued

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Annual maximum		
					Date	Gage height (feet)	Discharge (ft^3/s)
		Delaware River basin--Continued					
*01467330	South Branch Big Timber Creek at Blackwood, NJ	Lat 39°48'17", long 75°04'33", (revised), Camden County, at bridge on Lower Landing Road in Blackwood, and 3.0 mi (4.8 km) upstream from mouth. Datum of gage is 8.41 ft (2.563 m) National Geodetic Vertical Datum of 1929.	20.9 (54.1 km^2, Revised)	1964-82	4-28-82	b4.00	315
01467351	North Branch Big Timber Creek at Laurel Road at Laurel Springs, NJ	Lat 39°49'07", long 75°00'56", Camden County, at bridge on Laurel Road in Laurel Springs, and 2.5 mi (4.0 km) upstream from confluence with the South Branch. Datum of gage is 26.89 ft (8.196 m) National Geodetic Vertical Datum of 1929.	7.17 (18.57 km^2, Revised)	1975-82	5-29-82	1.98	405
01475000	Mantua Creek at Pitman, NJ	Lat 39°44'14", long 75°06'53", Gloucester County, on left abutment of Wadsworth Dam, 0.9 mi (1.4 km) east of Pitman, and 2.0 mi (3.2 km) upstream from Porch Branch. Datum of gage is 68.51 ft (20.882 m) National Geodetic Vertical Datum of 1929.	6.05 (15.67 km^2, Revised)	1940-76‡, 1977-82	5-29-82	2.20	267
01475019	Mantua Creek at Salina, NJ	Lat 39°46'13", long 75°07'59", Gloucester County, at bridge on Salina-Sewell Road, 0.2 mi (0.3 km) downstream of Bees Branch, and 0.5 mi (0.8 km) west of Salina. Datum of gage is 11.67 ft (3.557 m) National Geodetic Vertical Datum of 1929.	14.1 (36.5 km^2, Revised)	1975-82	4-28-82	5.53	468
01477110	Raccoon Creek at Mullica Hill, NJ	Lat 39°44'10", long 75°13'30", Gloucester County, at bridge State Routes 45 and 77 in Mullica Hill, 1,200 ft (370 m) downstream of Mullica Hill Pond and 5.5 mi (8.8 km) west of Pitman. Datum of gage is 21.91 ft (6.678 m) National Geodetic Vertical Datum of 1929.	15.6 (40.4 km^2)	1978-82	6-14-82	bf<1.75	g<250
01477480	Oldmans Creek near Harrisonville, NJ	Lat 39°41'40", long 75°18'38", Salem County, at bridge on Harrisonville Station Road, 2.4 mi (3.8 km) west of Harrisonville, and 2.8 mi (4.5 km) north of Woodstown. Datum of gage is 16.58 ft (5.054 m) National Geodetic Vertical Datum of 1929.	13.8 (35.7 km^2, Revised)	1975-82	6-14-82	4.49	240

*	Also a low-flow partial-record station.
**	Also a tidal crest-stage station.
†	Discharge not determined.
‡	Operated as a continuous-record gaging station.
a	Estimated.
b	Downstream side of bridge.
c	Not previously published.
d	Revised.
e	Backwater from tide.
f	Peak did not reach bottom of gage.
g	Peak discharge for the period was less than the minimum recordable discharge.
h	May have been higher during period of missing record Jan. 15-Mar. 30.
i	Peak due to reservoir release.

DISCHARGE MEASUREMENT AT MISCELLANEOUS SITES

Measurements of streamflow at points other than gaging stations are given in the following table. Those that are measurements of base flow are designated by an asterisk (*); measurements of peak flow by a dagger (†).

DISCHARGE MEASUREMENTS MADE AT MISCELLANEOUS SITES DURING WATER YEAR 1982

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements	
					Date	Discharge (ft^3/s)
		Delaware River basin				
01443440 Paulins Kill	Delaware River	Lat 41°06'20", long 74°45'19", Sussex County, at bridge in Balesville, 2.3 mi (3.7 km) upstream from Paulins Kill Lake, and 3.0 mi (4.8 km) north of Newton.	67.1 (173.8 km^2)	1979-81	6-10-82	*71
01446400 Pequest River	Delaware River	Lat 40°49'45", long 75°04'44", Warren County, at bridge on State Route 519, in Belvidere, 1,400 ft (430 m) upstream of mouth.	157 (407 km^2, Revised)	1950,53, 1955,74, 1977-81	11-10-81	88
					1-08-82	450
					3-25-82	249
					6-09-82	257
					9-07-82	99
01455801 Musconetcong River	Delaware River	Lat 40°55'10", long 74°44'07", Sussex County, at bridge at Lockwood 0.2 mi (0.3 km) downstream from Lubbers Run, and 1.5 mi (2.4 km) northwest of Stanhope.	60.1 (155.7 km^2, Revised)	1979-81	6-29-82	80
01464408 Crosswicks Creek tributary No. 2 tributary	Crosswicks Creek tributary No. 2	Lat 40°04'40", long 74°31'17", Ocean County, at bridge on Moorhouse Road, 100 ft (30 m) north, on road, of unnamed Tributary, 0.4 mi (0.6 km) from mouth at Crosswicks Creek Tributary No. 2, 0.5 mi (0.7 km) north of intersection of Moorhouse road spur and Lakewood Road 0.7 mi (1.2 km) northeast of railroad bridge over Crosswicks Creek, and 0.7 mi (1.2 km) northeast of junction of Moorhouse and Lakewood Roads in New Egypt.	-	-	11-05-81	ab*.25
01477510 Oldmans Creek	Delaware River	Lat 39°41'57", long 75°20'01", Salem County, at bridge on Kings Highway in Porches Mill, 1.0 mi (1.6 km) north of Seven Stars, and 3.1 mi (4.8 km) north of Woodstown.	21.0 (54.4 km^2)	1979-81	5-20-82	*22

* Base flow.
a Not previously published.
b Field estimate.

The following table contains annual maximum stages for tidal crest-stage stations. The information is obtained from a crest-stage gage or a water-stage recorder located at each site. A crest-stage gage is a device which will register the peak stage occurring between inspections of the gage. All stages are elevations above National Geodetic Vertical Datum of 1929 unless otherwise noted. Only the maximum stage is given. Information on some other high stages may have been obtained but is not published herein. The years given in the period of record represent water years for which the annual maximum has been determined.

ANNUAL MAXIMUM STAGES AT TIDAL CREST-STAGE PARTIAL-RECORD STATIONS

Station No.	Station name	Location	Period of record	Annual maximum Date	Annual maximum Elevation NGVD* (feet)
01411395	Cape May Canal at North Cape May, NJ	Lat 38°58'02", long 74°57'25", Cape May County, on Cape May Canal on slip of Cape May, New Jersey to Lewes, Delaware, ferry, 0.5 mi (0.8 km) east of west end of Cape May Canal, and 0.8 mi (1.3 km) south of North Cape May.	1965-82	-	c
01411409	Delaware Bay at Reeds Beach, NJ	Lat 39°06'32", long 074°53'39", Cape May County, at boat ramp in Cooks Beach, 0.2 mi (0.3 km) south of Reeds Beach, 4.8 mi (7.7 km) northwest of Cape May Court House, and 5.8 mi (9.3 km) north of Villas.	1979-82	11-15-81	6.62
01412150	Maurice River at Bivalve, NJ	Lat 39°13'42", long 75°02'12", Cumberland County, on right bank on bulkhead piling on the south side of Bivalve, and 1.3 mi (2.1 km) south of Port Norris.	1965-82	11-15-81	f
01413038	Cohansey River at Greenwich, NJ	Lat 39°23"02", long 075°20'58" Cumberland County, at Greenwich Pier, 0.7 mi (1.1 km) southwest of Greenwich, and 5.8 mi (9.3 km) southwest of Shiloh.	1979-82	11-15-81	5.28
01464040	Delaware River at Marine Terminal, Trenton, NJ	Lat 40°11'21", long 74°45'22", Mercer County, on left bank at downstream end of wharf at Marine Terminal, Trenton, 1.6 mi (2.6 km) downstream from toll bridge on U.S. Route 1, 2.0 mi (3.2 km) downstream from Assunpink Creek, and at channel mile 131.80 (212.07 km).	1921-46‡, 1951-54‡, 1957-82‡e	1-04-82	c11.95
01477050	Delaware River at Chester, PA	Lat 39°49'52", long 75°19'58", Gloucester County, on left bank on floodgate at mouth of Repaupo Creek 2.2 mi (3.5 km) northeast of Bridgeport, 5.5 mi (8.8 km) north of Swedesboro, and at channel mile 84.00 mi (135.16 km) prior to October 1980 located at Reynolds Aluminum Company pier in Chester, PA at channel mile 82.30 mi (132.42 km).	1972-77‡, 1979-82	6-30-82	b2.38
01483050	Alloway Creek at Hancocks Bridge, NJ	Lat 39°30'31" long 75°27'39", Salem County, on left bank at downstream side of Mill Street bridge in Hancocks Bridge, 0.4 mi (0.6 km) downstream from Lower Alloway Creek and 4.0 mi (6.4 km) south of Salem.	1980-82	11-15-81	4.56

* National Geodetic Vertical Datum of 1929 (NGVD).
‡ Operated as a continuous-record gaging station.
a Revised.
b Gage datum; not National Geodetic Vertical Datum of 1929 datum.
c Furnished by National Ocean Survey.
d Not previously published.
e Operated by National Ocean Survey since March 1975.
f Recorded elevations unreliable.

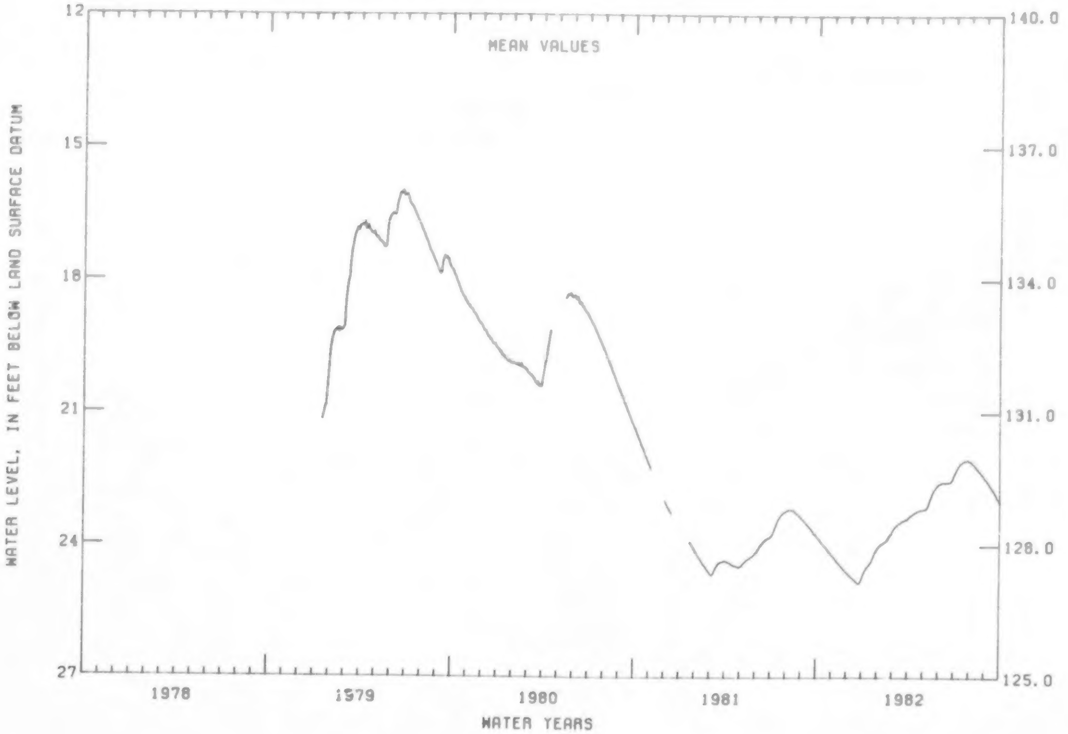
BURLINGTON COUNTY

395150074284201. Local I.D., Lebanon State Forest 23-D Obs. NJ-WRD Well Number, 05-0689.
LOCATION.--Lat 39°51'52", long 74°28'48", Hydrologic Unit 02040202, in Lebanon State Forest, Woodland Township. Owner: U.S. Geological Survey.
AQUIFER.--Kirkwood-Cohansey aquifer system of Miocene age.
WELL CHARACTERISTICS.--Drilled water-table observation well, diameter 8 in (203 mm), depth 33 ft (10.1 m), open-end cement casing.
INSTRUMENTATION.--Water-level recorder.
DATUM.--Land-surface datum is 152.02 ft (46.336 m), revised, above National Geodetic Vertical Datum of 1929. Measuring point: Top of 8 inch casing, 0.70 ft (0.210 m) above land-surface datum.
PERIOD OF RECORD.--September 1955 to April 1975, January 1979 to current year. Records for 1955 to 1975 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 14.37 ft (4.380 m), revised, below land-surface datum, Sept. 11, 1958; lowest, 25.80 ft (7.864 m), revised, below land-surface datum, Feb. 19-20, 1966.
EXTREMES FOR CURRENT YEAR.--Highest water level, 22.03 ft (6.715 m) below land-surface datum, July 28; lowest, 24.86 ft (7.577 m) below land-surface datum, Dec. 24-25.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	23.84	24.27	24.67	24.55	23.97	23.57	23.30	23.13	22.55	22.25	22.11	22.55
10	23.92	24.35	24.72	24.47	23.93	23.51	23.25	23.02	22.54	22.15	22.16	22.62
15	23.99	24.41	24.77	24.39	23.89	23.47	23.22	22.87	22.54	22.10	22.24	22.71
20	24.05	24.48	24.83	24.28	23.82	23.42	23.18	22.73	22.54	22.05	22.30	22.81
25	24.13	24.55	24.85	24.15	23.72	23.39	23.16	22.65	22.50	22.04	22.36	22.92
EOM	24.21	24.61	24.68	24.03	23.66	23.35	23.15	22.57	22.37	22.06	22.47	23.01
MEAN	24.00	24.42	24.75	24.35	23.87	23.47	23.22	22.86	22.52	22.12	22.25	22.73

WTR YR 1982 MEAN 23.38 HIGH 22.03 JUL 28 LOW 24.85 DEC 23 AND OTHERS

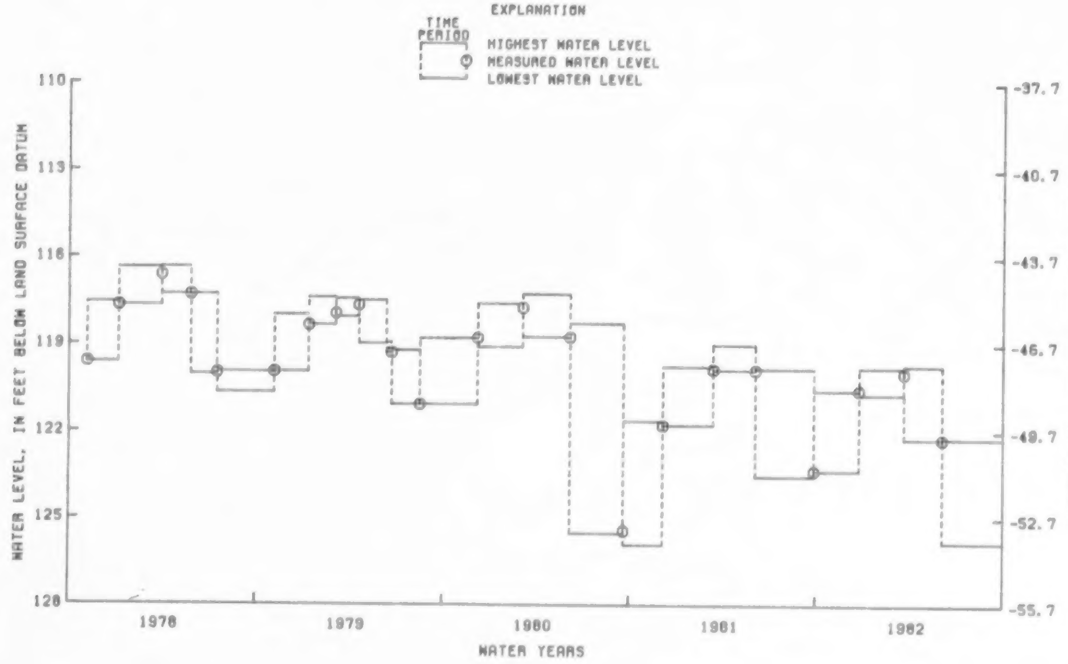


BURLINGTON COUNTY

395525074502601. Local I.D., Medford 4 Obs. NJ-WRD Well Number, 05-0262.
LOCATION.--Lat 39°55'24", long 74°50'25", Hydrologic Unit 02040202, at Medford Public Shooting Grounds, Medford Township.
Owner: U.S. Geological Survey.
AQUIFER.--Potomac-Raritan-Magothy aquifer system of Cretaceous age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in (152 mm), depth 1,145 ft (349.0 m), screened 1,125 to 1,145 ft (342.9 to 349.0 m).
INSTRUMENTATION.--Water-level extremes recorder, February 1977 to current year. Water-level recorder, January 1968 to July 1975.
DATUM.--Land-surface datum is 72.32 ft (22.043 m) above National Geodetic Vertical Datum of 1929.
Measuring point: Front edge of cutout in recorder housing, 2.56 ft (0.780 m) above land-surface datum.
PERIOD OF RECORD.--January 1968 to July 1975, February 1977 to current year. Records for 1968 to 1975 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 94.24 ft (28.724 m) below land-surface datum, Mar. 13, 1968; lowest, 125.91 ft (38.377 m) below land-surface datum, between Sept. 18 and Dec. 4, 1980.
EXTREMES FOR CURRENT YEAR.--Highest water level, 119.71 ft (36.488 m) below land-surface datum, between Mar. 19 and June 2; lowest, 125.82 ft (38.350 m) below land-surface datum, between June 2 and Oct. 6, 1982.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

WATER-LEVEL EXTREMES			MEASURED WATER LEVEL	
PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL	DATE	WATER LEVEL
SEPT. 25, 1981 TO DEC. 23, 1981	120.56	123.34	DEC. 23, 1981	120.56
DEC. 23, 1981 TO MAR. 19, 1982	119.78	120.71	MAR. 19, 1982	119.97
MAR. 19, 1982 TO JUNE 2, 1982	119.71	122.24	JUNE 2, 1982	122.24
JUNE 2, 1982 TO OCT. 6, 1982	122.22	125.82	OCT. 6, 1982	125.59



BURLINGTON COUNTY

395525074502505. Local I.D., Medford 5 Obs. NJ-WRD Well Number, 05-0261.

LOCATION.--Lat 39°55'25", long 74°50'25", Hydrologic Unit 02040202, at Medford Public Shooting Grounds, Medford Township.
Owner: U.S. Geological Survey.

AQUIFER.--Potomac-Raritan-Magothy aquifer system of Cretaceous age.

WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in (152 mm), depth 750 ft (229 m), screened 740 to 750 ft (226 to 229 m).

INSTRUMENTATION.--Water-level recorder.

DATUM.--Land-surface datum is 72.60 ft (22.128 m) above National Geodetic Vertical Datum of 1929.
Measuring point: Top edge of recorder shelf, 3.60 ft (1.100 m) above land-surface datum.

PERIOD OF RECORD.--January 1968 to March 1975, March 1977 to current year. Records for 1968 to 1977 are unpublished and are available in files of New Jersey District Office.

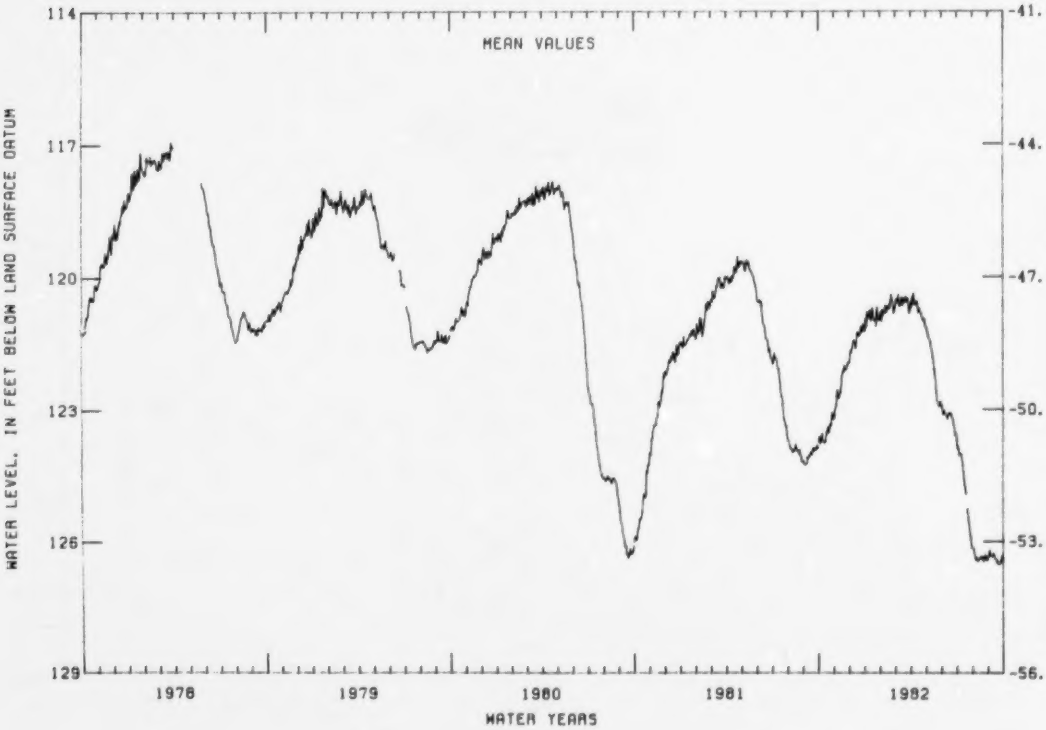
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 94.46 ft (28.791 m) below land-surface datum, Mar. 1, 1968; lowest, 126.54 ft (38.569 m) below land-surface datum, Sept. 21, 1982.

EXTREMES FOR CURRENT YEAR.--Highest water level, 120.26 ft (36.655 m) below land-surface datum, Apr. 6; lowest, 126.54 ft (38.569 m) below land-surface datum, Sept. 21.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	123.72	122.84	121.66	120.89	120.87	120.52	120.61	121.38	123.03	124.02	126.32	126.34
10	123.74	122.75	121.44	120.82	120.72	120.68	120.64	121.53	123.13	124.10	126.40	126.27
15	123.62	122.29	121.28	120.78	120.71	120.66	120.79	121.88	123.11	124.60	126.37	126.39
20	123.53	121.99	121.32	120.95	120.49	120.55	120.81	122.37	123.15	---	126.35	126.48
25	123.37	122.06	121.24	120.83	120.74	120.53	121.00	122.85	123.39	125.67	126.30	126.49
EOM	123.21	121.95	121.19	120.79	120.71	120.63	121.15	122.90	123.60	126.13	126.35	126.43
MEAN	123.51	122.39	121.39	120.91	120.71	120.58	120.75	122.07	123.20	124.80	126.36	126.39

WTR YR 1982 MEAN 122.76 HIGH 120.38 APR 6 LOW 126.52 SEP 21

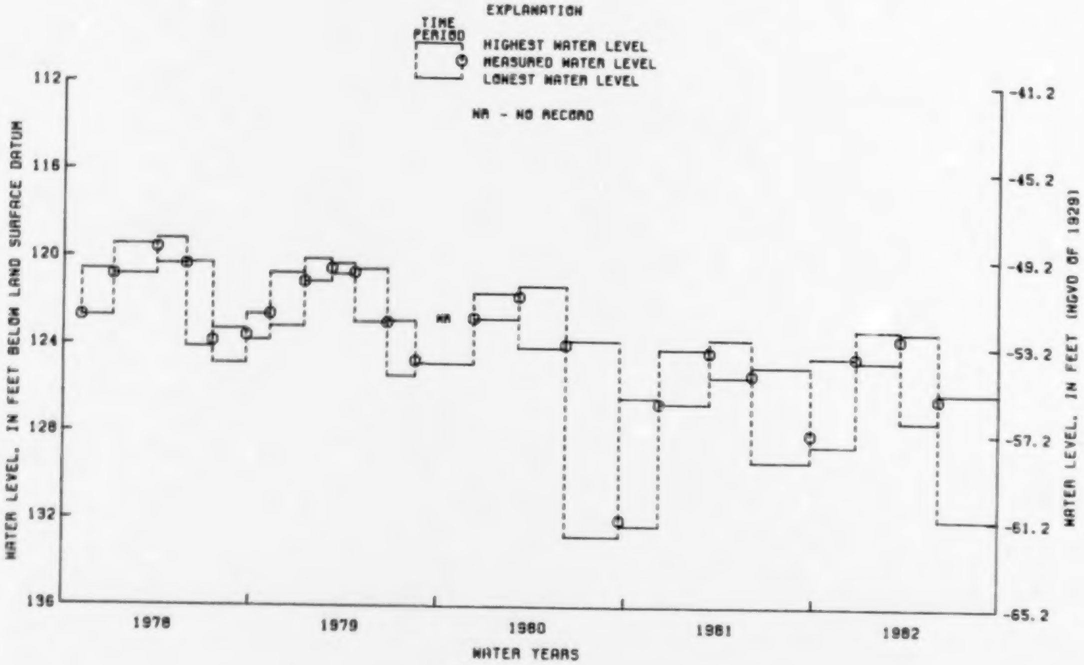


BURLINGTON COUNTY

395524074502501. Local I.D., Medford 1 Obs. NJ-WRD Well Number, 05-0258.
LOCATION.--Lat 39°55'24", long 74°50'25", Hydrologic Unit 02040202, at Medford Public Shooting Grounds, Medford Township.
Owner: U.S. Geological Survey.
AQUIFER.--Potomac-Raritan-Magothy aquifer system of Cretaceous age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in (152 mm), depth 410 ft (125.0 m), screened 400 to 410 ft (121.9 to 125.0 m).
INSTRUMENTATION.--Water-level extremes recorder, February 1977 to current year. Water-level recorder, October 1963 to August 1975.
DATUM.--Land-surface datum is 70.77 ft (21.571 m) above National Geodetic Vertical Datum of 1929.
Measuring point: Front edge of cutout in recorder housing, 2.87 ft (0.875 m) above land-surface datum.
PERIOD OF RECORD.--October 1963 to August 1975, February 1977 to current year. Records for 1963 to 1975 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 85.22 ft (25.975 m) below land-surface datum, Feb. 16-19, 1964; lowest, 132.78 ft (40.471 m) below land-surface datum, between June 5 and Sept. 18, 1980.
EXTREMES FOR CURRENT YEAR.--Highest water level, 123.23 ft (37.561 m) below land-surface datum, between Dec. 23 and Mar. 19; lowest, 131.94 ft (40.215 m) below land-surface datum, between June. 2 and Oct. 6, 1982.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

WATER-LEVEL EXTREMES			MEASURED WATER LEVEL	
PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL	DATE	WATER LEVEL
SEPT. 25, 1981 TO DEC. 23, 1981	124.51	128.59	DEC. 23, 1981	124.51
DEC. 23, 1981 TO MAR. 19, 1982	123.23	124.70	MAR. 19, 1982	123.66
MAR. 19, 1982 TO JUNE 2, 1982	123.33	127.44	JUNE 2, 1982	126.39
JUNE 2, 1982 TO OCT. 6, 1982	126.12	131.94	OCT. 6, 1982	130.35

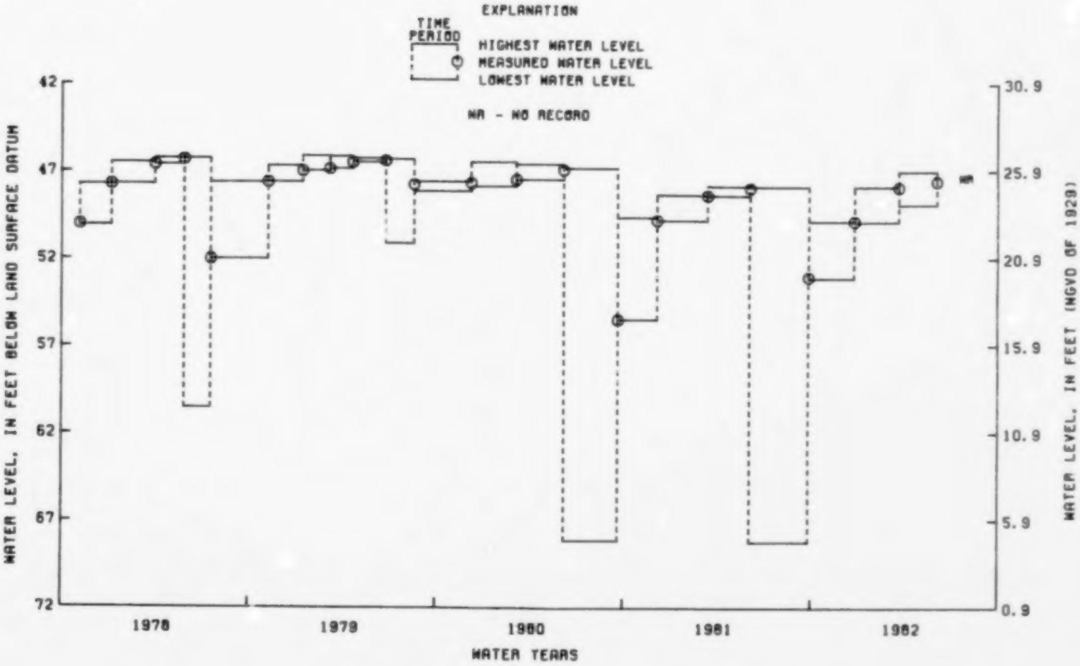


BURLINGTON COUNTY

395524074502502. Local I.D., Medford 2 Obs. NJ-WRD Well Number, 05-0259.
LOCATION.--Lat 39°55'24", long 74°50'25", Hydrologic Unit 02040202, at Medford Public Shooting Grounds, Medford Township.
Owner: U.S. Geological Survey.
AQUIFER.--Englishtown aquifer of Cretaceous age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in (152 mm), depth 263 ft (80.2 m), screened 253 to 263 ft (77.1 to 80.2 m).
INSTRUMENTATION.--Water-level extremes recorder, February 1977 to current year. Water-level recorder, October 1963 to August 1975.
DATUM.--Land-surface datum is 72.92 ft (22.226 m) above National Geodetic Vertical Datum of 1929.
Measuring point: Front edge of cutout in recorder housing, 3.40 ft (1.036 m) above land-surface datum.
REMARKS.-Water level affected by nearby pumping.
PERIOD OF RECORD.--October 1963 to August 1975, February 1977 to current year. Records for 1963 to 1975 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 45.42 ft (13.844 m) below land-surface datum, April 27, 1973; lowest, 111.96 ft (34.125 m) below land-surface datum, July 9, 1964.
EXTREMES FOR CURRENT YEAR.--Highest water level, 46.97 ft (14.316 m) below land-surface datum, between Mar. 19 and June 2; lowest, 53.12 ft (16.191 m) below land-surface datum, between Sept. 25 and Dec. 23, 1981.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM. WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

WATER-LEVEL EXTREMES			MEASURED WATER LEVEL	
PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL	DATE	WATER LEVEL
SEPT. 25, 1981 TO DEC. 23, 1981	49.81	53.12	DEC. 23, 1981	49.81
DEC. 23, 1981 TO MAR. 19, 1982	47.83	49.86	MAR. 19, 1982	47.87
MAR. 19, 1982 TO JUNE 2, 1982	46.97	48.88	JUNE 2, 1982	47.55
JUNE 2, 1982 TO OCT. 6, 1982	---	---	OCT. 6, 1982	50.23



BURLINGTON COUNTY

400010074521601. Local I.D., Willingboro 2 Obs. NJ-WRD Well Number, 05-0645.

LOCATION.--Lat 40°00'10", long 74°52'16", Hydrologic Unit 02040202, at Bridge Street and Tiffany Lane, Willingboro.
Owner: Willingboro Municipal Utilities Authority.

AQUIFER.--Potomac-Raritan-Magothy aquifer system of Cretaceous age.

WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in (152 mm), depth 441 ft (134.4 m), screened 431 to 441 ft (131.4 to 134.4 m).

INSTRUMENTATION.--Water-level recorder.

DATUM.--Land-surface datum is 40.30 ft (12.283 m) above National Geodetic Vertical Datum of 1929.
Measuring point: Top edge of recorder shelf, 2.00 ft (0.610 m) below land-surface datum.

REMARKS.--Water level affected by nearby pumping.

PERIOD OF RECORD.--March 1966 to September 1975, March 1977 to current year. Records for 1966 to 1975 are unpublished and are available in files of New Jersey District Office.

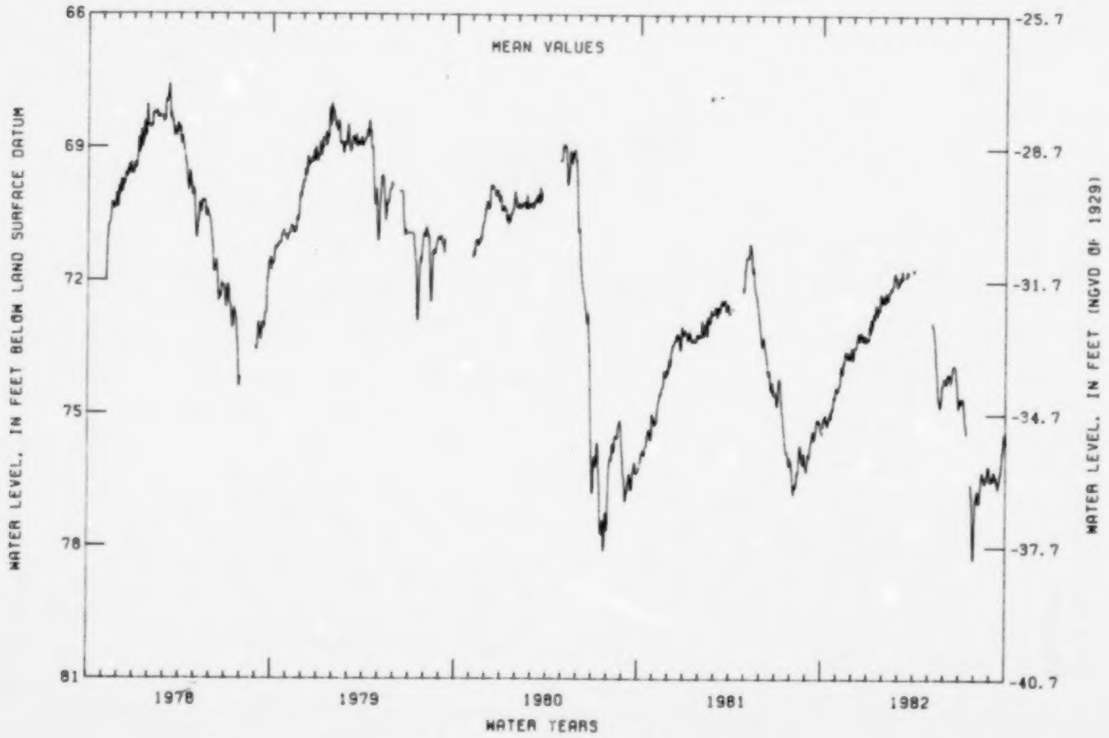
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 49.79 ft (15.176 m) below land-surface datum, June 21, 1967; lowest, 79.00 ft (24.079 m) below land-surface datum, July 29, 1977.

EXTREMES FOR CURRENT YEAR.--Highest water level, 71.44 ft (21.775 m) below land-surface datum, Mar. 7; lowest, 78.57 ft (23.948 m) below land-surface datum, July 28.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	75.06	74.19	73.48	73.03	72.39	71.86		---	74.13	74.61	76.86	76.27
10	75.25	74.05	73.14	72.73	72.22	71.87		73.16	74.14	75.16	76.70	76.39
15	75.02	73.56	73.12	72.59	72.13	71.88		73.97	74.02	---	76.38	76.51
20	74.90	73.57	73.29	72.51	71.84	---		74.65	73.91	---	76.48	76.19
25	74.63	73.68	73.33	72.43	72.02	---		74.49	74.41	77.23	76.16	75.58
EOM	74.48	73.76	73.22	72.29	72.05	71.70		74.19	74.61	77.02	76.45	75.63
MEAN	74.89	73.84	73.30	72.66	72.13	71.85		74.02	74.20	76.00	76.54	76.18

WTR YR 1982 MEAN 74.22 HIGH 71.70 MAR 31 LOW 78.27 JUL 28

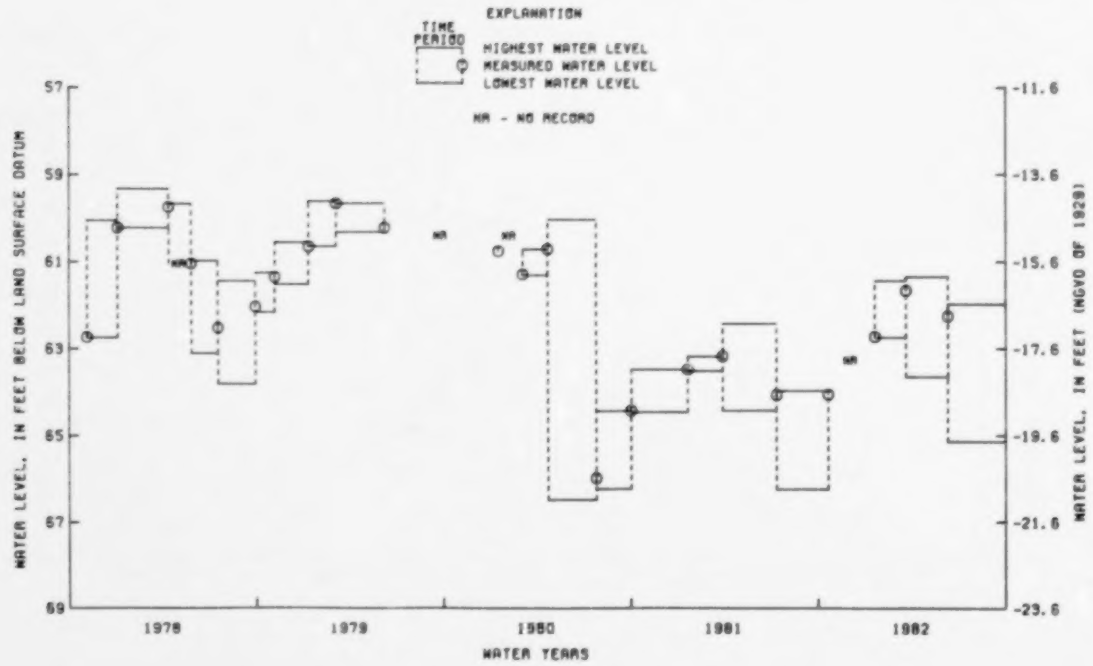


BURLINGTON COUNTY

400213074510801. Local I.D., Willingboro 1 Obs. NJ-WRD Well Number, 05-0063.
LOCATION.--Lat 40°02'13", long 74°51'08", Hydrologic Unit 02040202, on the west side of Rancocas Road about 2 mi (3.2 km) north of Rancocas.
Owner: Willingboro Municipal Utilities Authority.
AQUIFER.--Potomac-Raritan-Magothy aquifer system of Cretaceous age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in (152 mm), depth 294 ft (89.6 m), screened 284 to 294 ft (86.6 to 89.6 m).
INSTRUMENTATION.--Water-level extremes recorder, February 1977 to current year. Water-level recorder, March 1966 to September 1975.
DATUM.--Land-surface datum is 45.45 ft (13.853 m) above National Geodetic Vertical Datum of 1929.
Measuring point: Front edge of cutout in recorder housing, 0.76 ft (0.232 m) above land-surface datum.
REMARKS.--Water level affected by nearby pumping.
PERIOD OF RECORD.--March 1966 to September 1975, February 1977 to current year. Records for 1966 to 1975 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 46.25 ft (14.097 m) below land-surface datum, Mar. 19, 1966; lowest, 68.47 ft (20.870 m) below land-surface datum, between July 12 and Sept. 22, 1977.
EXTREMES FOR CURRENT YEAR.--Highest water level, 61.34 ft (18.696 m) below land-surface datum, between Mar. 19 and June 9; lowest, 65.14 ft (19.855 m) below land-surface datum, between June 9 and Oct. 5, 1982.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

WATER-LEVEL EXTREMES			MEASURED WATER LEVEL	
PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL	DATE	WATER LEVEL
OCT. 19, 1981 TO JAN. 18, 1982	---	---	JAN. 18, 1982	62.72
JAN. 18, 1982 TO MAR. 19, 1982	61.43	62.74	MAR. 19, 1982	61.66
MAR. 19, 1982 TO JUNE 9, 1982	61.34	63.65	JUNE 9, 1982	62.25
JUNE 9, 1982 TO OCT. 5, 1982	61.97	65.14	OCT. 5, 1982	63.00



BURLINGTON COUNTY

400242074422301. Local I.D., Rhodia Corp. 1 Obs. NJ-WRD Well Number, 05-0440.

LOCATION.--Lat 40°02'42", long 74°42'23", Hydrologic Unit 02040201, on the lands of Rhodia Corporation near Jobstown. Owner: Rhodia Corporation.

AQUIFER.--Potomac-Raritan-Magothy aquifer system of Cretaceous age.

WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 8 in (203 mm), depth 615 ft (187.5 m), revised, screened 603 to 613 ft (183.8 to 186.8 m).

INSTRUMENTATION.--Water-level extremes recorder, April 1977 to current year. Water-level recorder, December 1968 to March 1975.

DATUM.--Land-surface datum is 71.65 ft (21.839 m) above National Geodetic Vertical Datum of 1929. Measuring point: Front edge of cutout in recorder housing, 2.22 ft (0.677 m) above land-surface datum.

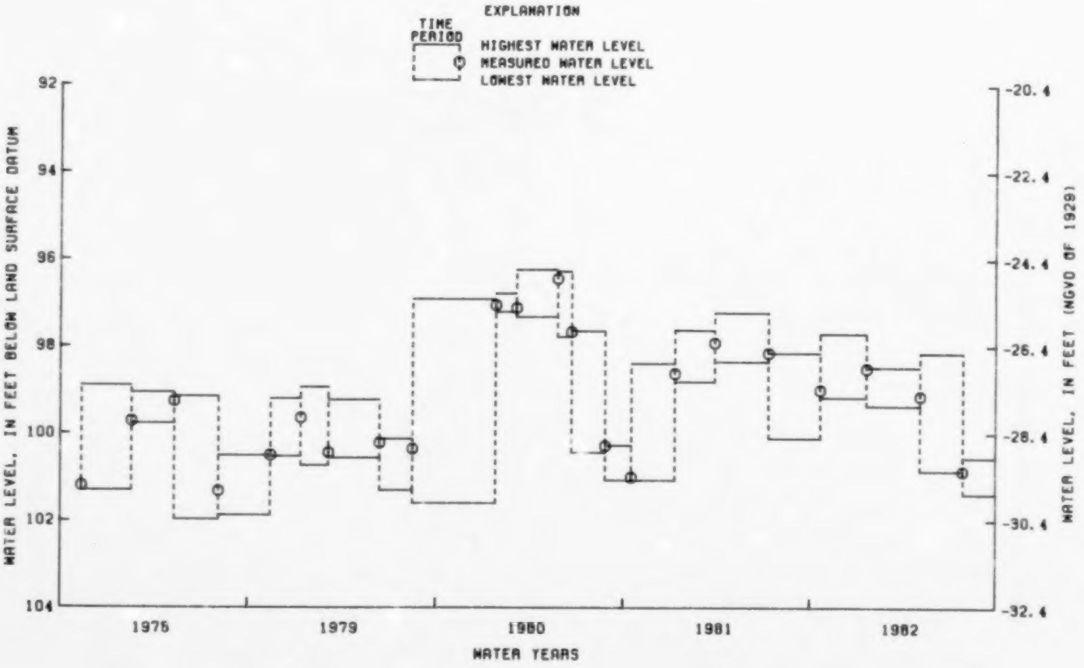
PERIOD OF RECORD.--December 1968 to March 1975, April 1977 to current year. Records for 1968 to 1975 are unpublished and are available in files of New Jersey District Office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 86.55 ft (26.380 m) below land-surface datum, Dec. 31, 1969; lowest, 104.13 ft (31.739 m) below land-surface datum, between Apr. 28 and Aug. 8, 1977.

EXTREMES FOR CURRENT YEAR.--Highest water level, 97.71 ft (29.782 m) below land-surface datum, between Oct. 19 and Jan. 18; lowest, 101.39 ft (30.904 m) below land-surface datum, between July 27 and Oct. 1, 1982.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

WATER-LEVEL EXTREMES			MEASURED WATER LEVEL	
PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL	DATE	WATER LEVEL
OCT. 19, 1981 TO JAN. 18, 1982	97.71	99.18	JAN. 18, 1982	98.51
JAN. 18, 1982 TO MAY 3, 1982	98.48	99.37	MAY 3, 1982	99.14
MAY 3, 1982 TO JULY 27, 1982	98.15	100.86	JULY 27, 1982	100.86
JULY 27, 1982 TO OCT. 1, 1982	100.55	101.39	OCT. 1, 1982	100.99



CAMDEN COUNTY

394922074563301. Local I.D., Elm Tree Farm 2 Obs. NJ-WRD Well Number, 07-0412.

LOCATION.--Lat 39°49'22", long 74°56'30", Hydrologic Unit 02040202, about 200 ft (61 m) northeast of Thomas Road and about 2 mi (3.2 km) northwest of Berlin.
Owner: New Jersey Water Company.

AQUIFER.--Potomac-Raritan-Magothy aquifer system of Cretaceous age.

WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in (152 mm), depth 1,092 ft (332.8 m), screened 1,082 to 1,092 ft (329.8 to 332.8 m).

INSTRUMENTATION.--Water-level extremes recorder, February 1977 to current year. Water-level recorder, January 1963 to June 1975.

DATUM.--Land-surface datum is 148.68 ft (45.318 m) above National Geodetic Vertical Datum of 1929.
Measuring point: Front edge of cutout in recorder housing, 1.76 ft (0.536 m) above land-surface datum.

REMARKS.--Well was originally screened 1,217 to 1,227 ft (370.9 to 374.0 m); rehabilitated August 1969.

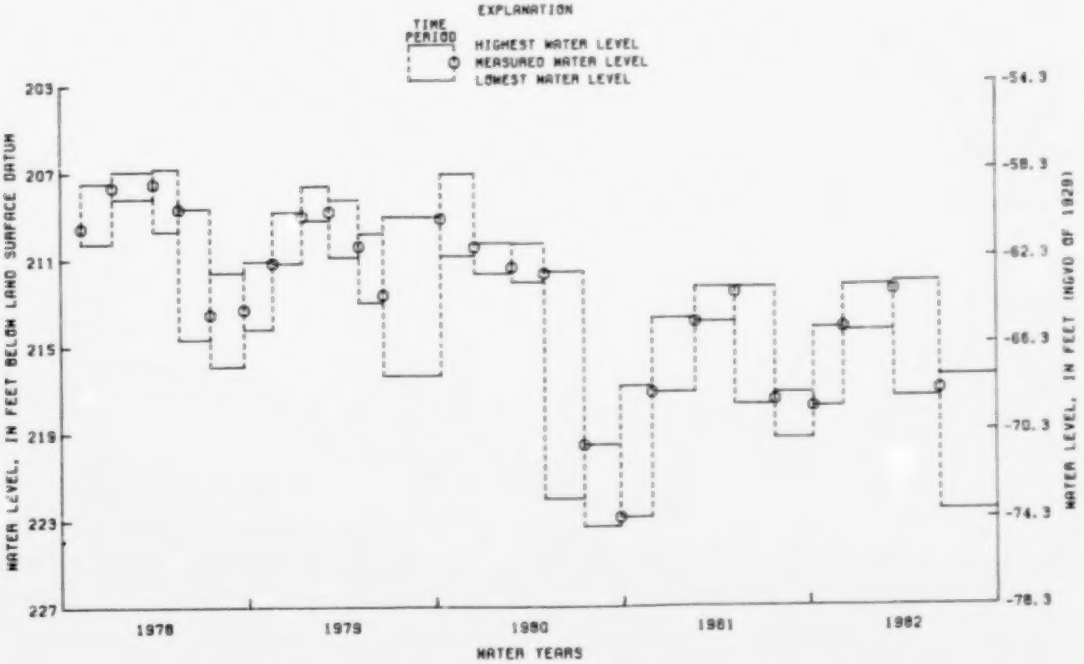
PERIOD OF RECORD.--January 1963 to June 1975, February 1977 to current year. Records for 1963 to 1975 are unpublished and are available in files of New Jersey District Office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 166.06 ft (50.615 m) below land-surface datum, July 21, 1965; lowest, 223.32 ft (68.068 m) below land-surface datum, between July 15 and Sept. 24, 1980.

EXTREMES FOR CURRENT YEAR.--Highest water level, 212.14 ft (64.660 m) below land-surface datum, between Mar. 12 and June 10; lowest, 222.62 ft (67.855 m) below land-surface datum, between June 10 and Oct. 6, 1982.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

WATER-LEVEL EXTREMES			MEASURED WATER LEVEL	
PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL	DATE	WATER LEVEL
OCT. 6, 1981 TO DEC. 4, 1981	214.22	217.84	DEC. 4, 1981	214.22
DEC. 4, 1981 TO MAR. 12, 1982	212.28	214.38	MAR. 12, 1982	212.53
MAR. 12, 1982 TO JUNE 10, 1982	212.14	217.43	JUNE 10, 1982	217.09
JUNE 10, 1982 TO OCT. 6, 1982	216.46	222.62	OCT. 6, 1982	220.87



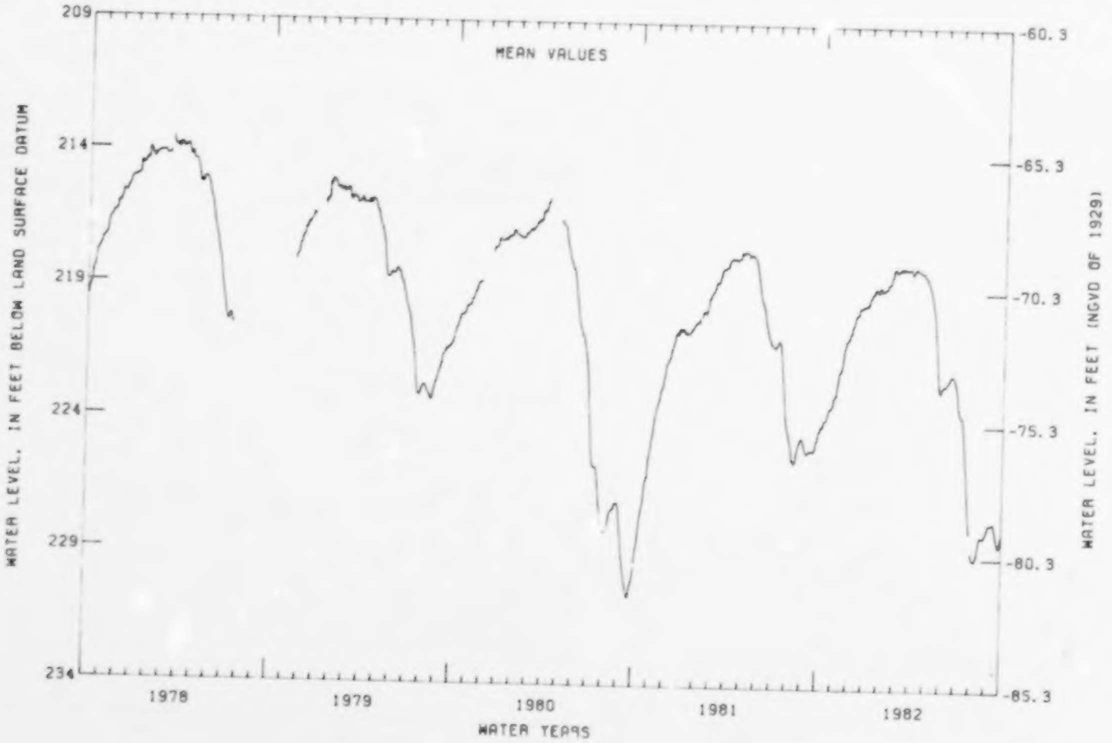
CAMDEN COUNTY

394922074563302. Local I.D., Elm Tree Farm 3 Obs. NJ-WRD Well Number, 07-0413.
LOCATION.--Lat 39°49'22", long 74°56'30", Hydrologic Unit 02040202, about 200 ft (61 m) northeast of Thomas Road and about 2 mi (3.2 km) northwest of Berlin.
Owner: New Jersey Water Company.
AQUIFER.--Potomac-Raritan-Magothy aquifer system of Cretaceous age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in (152 mm), depth 717 ft (218.5 m), screened 706 to 717 ft (215.2 to 218.5 m).
INSTRUMENTATION.--Water-level recorder.
DATUM.--Land-surface datum is 148.73 ft (45.333 m), revised, above National Geodetic Vertical Datum of 1929.
Measuring point: Top edge of recorder shelf, 0.60 ft (0.180 m) above land-surface datum.
PERIOD OF RECORD.--December 1963 to April 1975, March 1977 to current year. Records for 1963 to 1977 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 174.21 ft (53.099 m) below land-surface datum, Feb. 6, 1964; lowest, 230.66 ft (70.305 m) below land-surface datum, Sept. 19-20, 1980.
EXTREMES FOR CURRENT YEAR.--Highest water level, 218.02 ft (66.452 m) below land-surface datum, Apr. 6; lowest, 229.06 ft (69.817 m) below land-surface datum, Aug. 7-8.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	224.11	222.34	220.20	219.20	218.87	218.13	218.10	218.86	222.48	223.52	229.03	227.68
10	223.87	221.98	219.86	219.04	218.67	218.15	218.13	219.36	222.34	223.66	228.91	227.64
15	223.67	221.41	219.73	218.86	218.60	218.08	218.19	220.11	222.17	224.66	228.40	227.80
20	223.39	220.91	219.59	218.95	218.22	218.14	218.23	221.37	222.08	226.04	228.15	228.30
25	223.29	220.75	219.54	218.80	218.14	218.12	218.38	222.65	222.29	227.61	228.15	228.54
EOM	222.93	220.54	219.53	218.94	218.23	218.27	218.57	222.51	222.70	228.76	227.90	228.04
MEAN	223.59	221.46	219.78	219.03	218.53	218.13	218.24	220.63	222.32	225.10	228.48	227.98

WTR YR 1982 MEAN 221.94 HIGH 218.05 MAR 8 AND OTHERS LOW 229.05 AUG 7 AND OTHERS



CAMDEN COUNTY

395229074571201. Local I.D., Hutton Hill 1 Obs. NJ-WRD Well Number, 07-0117.
LOCATION.--Lat 39°52'29", long 74°57'12", Hydrologic Unit 02040202, about 800 ft (243.8 m) northeast of intersection of Kresson and Cropwell Roads, Cherry Hill Township.
Owner: New Jersey Water Company.
AQUIFER.--Potomac-Raritan-Magothy aquifer system of Cretaceous age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in (152 mm), depth 562 ft (171.3 m), screened 552 to 562 ft (168.2 to 171.3 m).
INSTRUMENTATION.--Water-level extremes recorder, February 1977 to current year. Water-level recorder, August 1967 to April 1975.
DATUM.--Land-surface datum is 157.61 ft (48.040 m) above National Geodetic Vertical Datum of 1929.
Measuring point: Front edge of cutout in recorder housing, 1.89 ft (0.576 m) above land-surface datum.
PERIOD OF RECORD.--August 1967 to April 1975, February 1977 to current year. Records for 1967 to 1975 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 200.77 ft (61.195 m) below land-surface datum, Mar. 23, 1968; lowest, 250.65 ft (76.398 m) below land-surface datum, between July 15 and Sept. 24, 1980.
EXTREMES FOR CURRENT YEAR.--Highest water level, 231.27 ft (70.491 m) below land-surface datum, between Dec. 4 and Mar. 12; lowest, 246.63 ft (75.173 m) below land-surface datum, between Aug. 27 and Oct. 6, 1982.

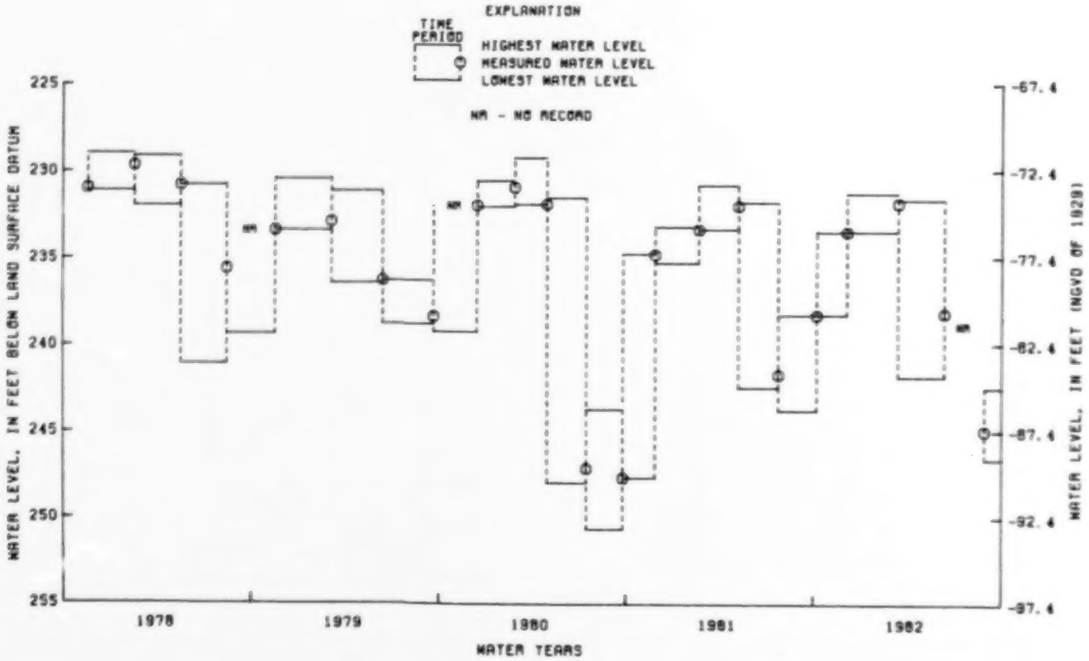
WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

WATER-LEVEL EXTREMES

PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL
OCT. 6, 1981 TO DEC. 4, 1981	233.48	238.28
DEC. 4, 1981 TO MAR. 12, 1982	231.27	233.48
MAR. 12, 1982 TO JUNE 10, 1982	231.65	241.85
JUNE 10, 1982 TO AUG. 27, 1982	---	---
AUG. 27, 1982 TO OCT. 6, 1982	242.50	246.63

MEASURED WATER LEVEL

DATE	WATER LEVEL
DEC. 4, 1981	233.48
MAR. 12, 1982	231.85
JUNE 10, 1982	238.20
AUG. 27, 1982	244.95
OCT. 6, 1982	243.19



CAPE MAY COUNTY

385804074574201. Local I.D., Higbee Beach 3 Obs. NJ-WRD Well Number, 09-0049.
LOCATION.--Lat 38°58'04", long 74°57'42", Hydrologic Unit 02040206, on the north bank of the west end of the Cape May Canal, Lower Township.
Owner: U.S. Geological Survey.
AQUIFER.--Cohansey Sand of Miocene age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in (152 mm), depth 250 ft (76.2 m), screened 241 to 250 ft (73.5 to 76.2 m).
INSTRUMENTATION.--Water-level extremes recorder, May 1977 to current year. Water-level recorder, June 1965 to September 1975.
DATUM.--Land-surface datum is 6.00 ft (1.83 m) above National Geodetic Vertical Datum of 1929.
Measuring point: Front edge of cutout in recorder housing, 3.00 ft (0.914 m) above land-surface datum.
REMARKS.--Water level affected by tidal fluctuation.
PERIOD OF RECORD.--June 1965 to September 1975, May 1977 to current year. Records for 1975 to 1980 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 13.16 ft (4.011 m) below land-surface datum, Dec. 21, 1965; lowest, 34.22 ft (10.430 m), revised, below land-surface datum, July 31, 1974. The low of record of 35.63 ft on August 20, 1974 published in WSP 2164 was in error.
EXTREMES FOR CURRENT YEAR.--Highest water level, 15.97 ft (4.868 m) below land-surface datum, between Apr. 13 and June 17; lowest, 27.66 ft (8.431 m) below land-surface datum, between June 17 and Oct. 7, 1982.

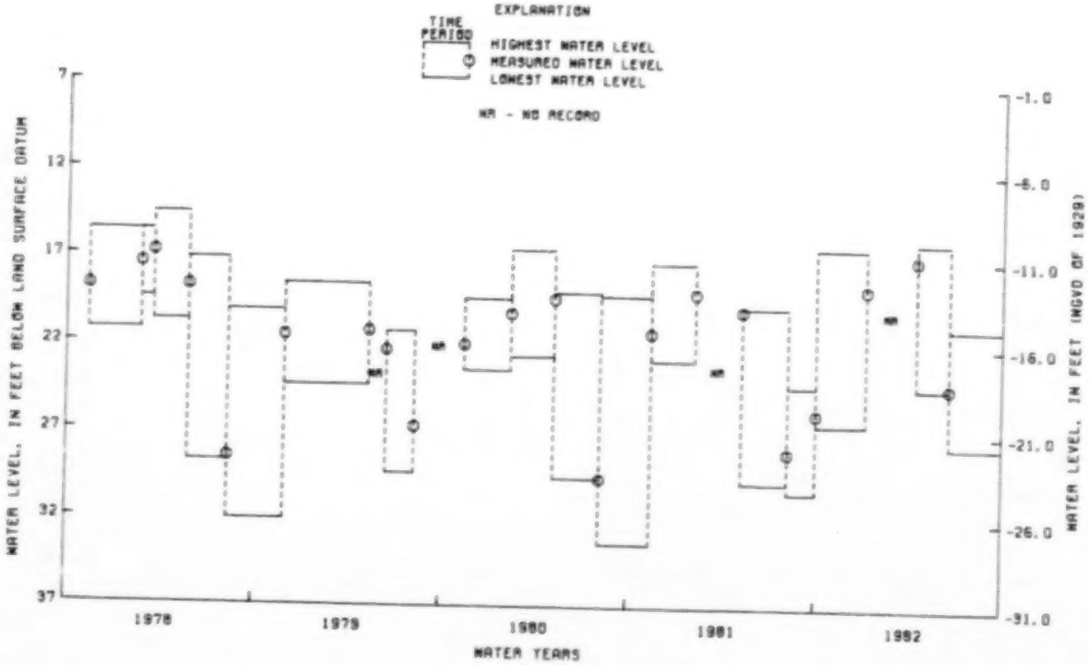
WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

WATER-LEVEL EXTREMES

PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL
SEPT. 29, 1981 TO JAN. 5, 1982	16.34	26.46
JAN. 5, 1982 TO APR. 13, 1982	---	---
APR. 13, 1982 TO JUNE 17, 1982	15.97	24.31
JUNE 17, 1982 TO OCT. 7, 1982	20.88	27.66

MEASURED WATER LEVEL

DATE	WATER LEVEL
JAN. 5, 1982	18.65
APR. 13, 1982	16.92
JUNE 17, 1982	24.23
OCT. 7, 1982	21.49



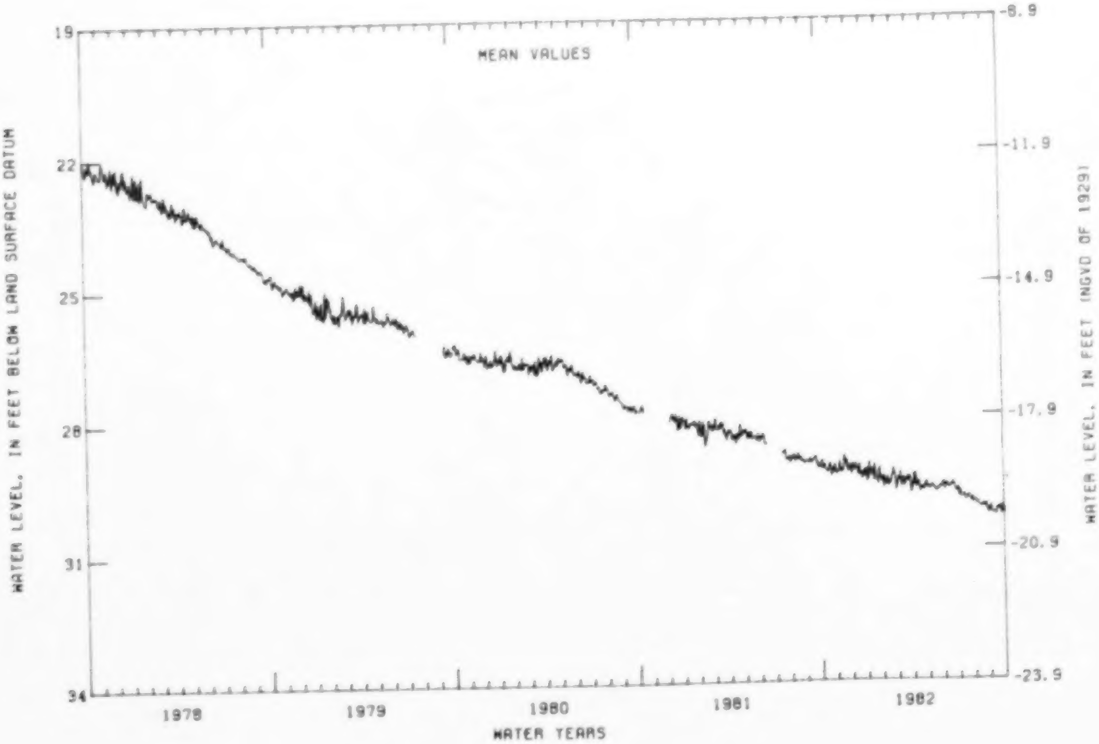
CUMBERLAND COUNTY

391828075120902. Local I.D., Jones Island 2 Obs. NJ-WRD Well Number, 11-0096.
LOCATION.--Lat 39°18'29", long 75°12'08", Hydrologic Unit 02040206, about 1.7 mi (2.7 km) south of Cedarville at Jones Island, Lawrence Township.
Owner: Cumberland County.
AQUIFER.--Piney Point aquifer of Eocene age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 4 in (102 mm), depth 375 ft (114 m), screened 365 to 375 ft (111 to 114 m).
INSTRUMENTATION.--Water-level recorder.
DATUM.--Land-surface datum is 10.10 ft (3.078 m) above National Geodetic Vertical Datum of 1929.
Measuring point: Top edge of recorder shelf, 1.90 ft (0.579 m) above land-surface datum.
PERIOD OF RECORD.--March 1977 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 19.99 ft (6.093 m) below land-surface datum, Mar. 22, 1977; lowest, 30.35 ft (9.251 m) below land-surface datum, Sept. 24, 1982.
EXTREMES FOR CURRENT YEAR.--Highest water level, 28.72 ft (8.754 m) below land-surface datum, Nov. 15; lowest, 30.35 ft (9.251 m) below land-surface datum, Sept. 24.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	29.16	29.19	29.20	29.28	29.57	29.41	29.59	29.68	29.56	29.63	30.00	30.23
10	29.21	29.27	29.15	29.27	29.47	29.61	29.57	29.64	29.61	29.85	30.03	30.24
15	29.18	28.87	29.09	29.21	29.53	29.61	29.72	29.71	29.63	29.93	30.10	30.17
20	29.32	29.00	29.40	29.42	29.33	29.48	29.63	29.66	29.58	29.83	30.05	30.14
25	29.26	29.20	29.36	29.36	29.55	29.42	29.65	29.62	29.73	29.94	30.02	30.25
EOM	29.30	29.31	29.43	29.36	29.60	29.54	29.66	29.55	29.69	29.95	30.21	30.22
MEAN	29.18	29.16	29.26	29.34	29.48	29.50	29.59	29.65	29.63	29.88	30.07	30.19

WTR YR 1982 MEAN 29.58 HIGH 28.87 NOV 15 LOW 30.28 SEP 13 AND OTHERS

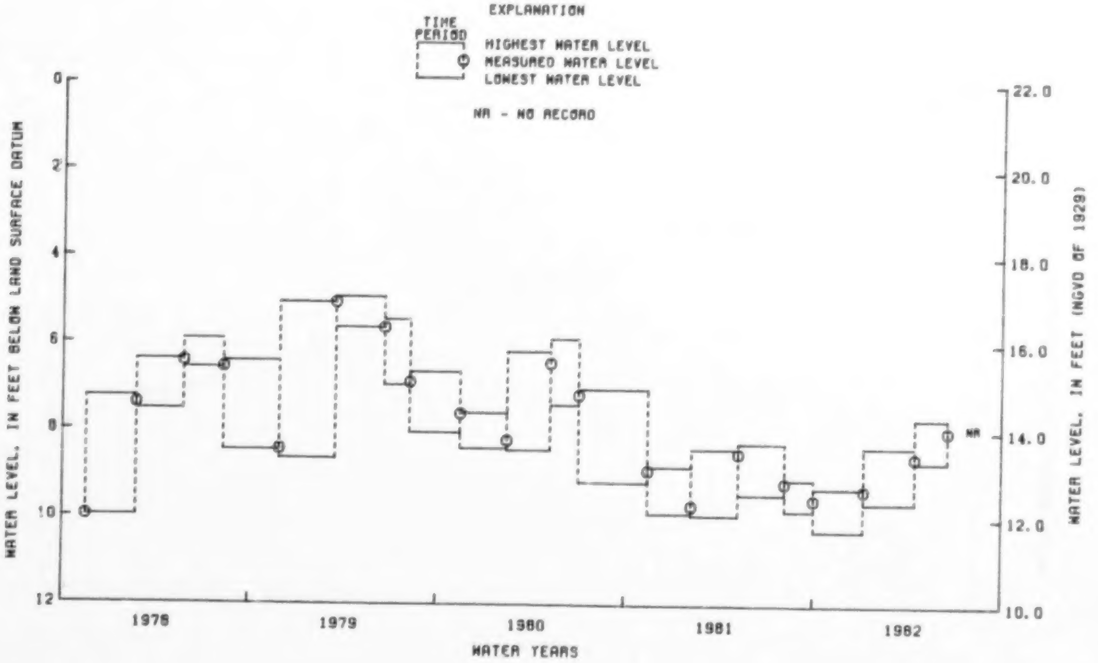


CUMBERLAND COUNTY

392219075011301. Local I.D., Orange Street Obs. NJ-WRD Well Number, 11-0141.
LOCATION.--Lat 39°22'19", long 75°01'13", Hydrologic Unit 02040206, about 0.2 mi (0.3 km) northeast of Route 47 on Orange Street, Millville.
Owner: Millville City Water Department.
AQUIFER.--Kirkwood-Cohansey aquifer system of Miocene age.
WELL CHARACTERISTICS.--Drilled water-table observation well, diameter 12 in (305 mm), depth 149 ft (45.4 m), screened 114 to 149 ft (34.7 to 45.4 m).
INSTRUMENTATION.--Water-level extremes recorder, March 1977 to current year. Water-level recorder, October 1962 to September 1975.
DATUM.--Altitude of land-surface datum is 22 ft (6.7 m), from topographic map.
Measuring point: Front edge of cutout in recorder housing, 4.26 ft (1.298 m) above land-surface datum.
PERIOD OF RECORD.--October 1962 to September 1975, March 1977 to current year. Records for 1962 to 1980 are unpublished and are availabe in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 4.94 ft (1.506 m) below land-surface datum, between Mar. 16 and June 19, 1979; lowest, 11.37 ft (3.466 m) below land-surface datum, Feb. 10, 1966.
EXTREMES FOR CURRENT YEAR.--Highest water level, 7.71 ft (2.350 m) below land-surface datum, between Apr. 14 and June 17; lowest, 10.29 ft (3.136 m) below land-surface datum, between Sept. 30 and Jan. 5, 1982.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

WATER-LEVEL EXTREMES			MEASURED WATER LEVEL	
PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL	DATE	WATER LEVEL
SEPT. 30, 1981 TO JAN. 5, 1982	9.30	10.29	JAN. 5, 1982	9.35
JAN. 5, 1982 TO APR. 14, 1982	8.36	9.65	APR. 14, 1982	8.59
APR. 14, 1982 TO JUNE 17, 1982	7.71	8.70	JUNE 17, 1982	7.99
JUNE 17, 1982 TO OCT. 7, 1982	---	---	OCT. 7, 1982	9.92

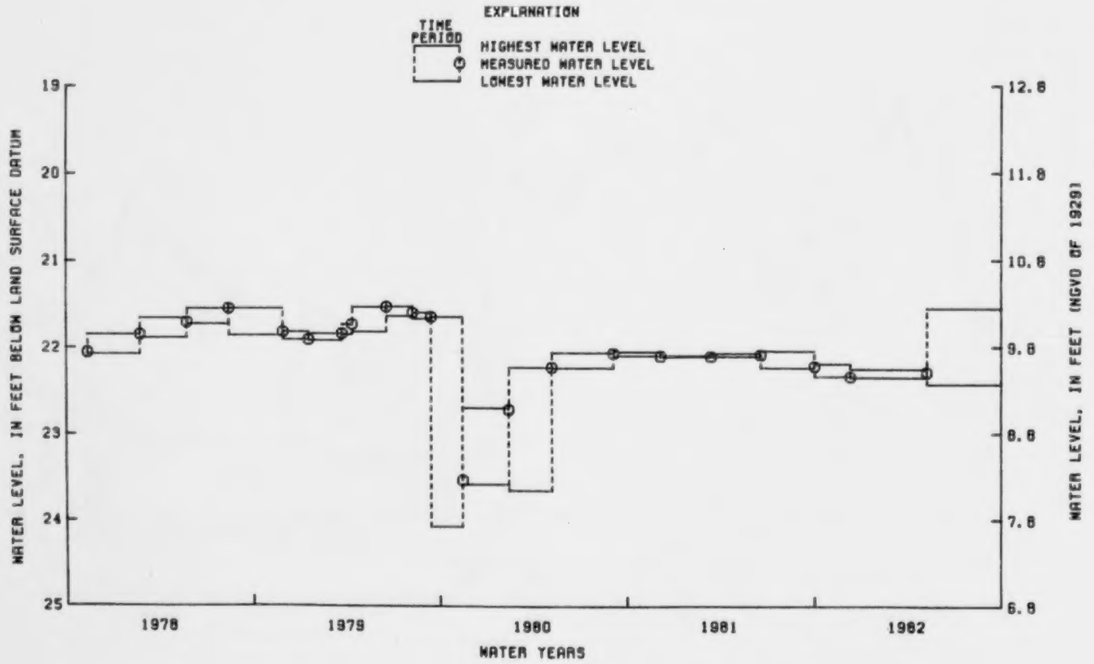


CUMBERLAND COUNTY

392442075191601. Local I.D., Sheppards 1 Obs. NJ-WRD Well Number, 11-0072.
LOCATION.--Lat 39°24'42", long 75°19'16", Hydrologic Unit 02040206, near the south end of Sheppards Mill Pond, about 3.5 mi (5.6 km) south of Shiloh.
Owner: Cumberland County.
AQUIFER.--Wenonah-Mount Laurel aquifer of Cretaceous age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 4 in (102 mm), depth 638 ft (194.5 m), screened 603 to 623 ft (183.8 to 189.9 m).
INSTRUMENTATION.--Water-level extremes recorder, May 1977 to current year.
DATUM.--Land-surface datum is 31.80 ft (9.693 m) above National Geodetic Vertical Datum of 1929.
Measuring point: Front edge of cutout in recorder housing, 1.75 ft (0.533 m) above land-surface datum.
PERIOD OF RECORD.--May 1977 to current year. Periodic manual measurements, March 1973 to June 1975. Records for 1973 to 1981 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 21.44 ft (6.535 m) below land-surface datum, between May 11 and Aug. 12, 1977; lowest, 24.08 ft (7.340 m) below land-surface datum, between Sept. 13 and Nov. 14, 1979.
EXTREMES FOR CURRENT YEAR.--Highest water level, 21.55 ft (6.568 m) below land-surface datum, between May 6 and Nov. 3, 1982; lowest, 22.43 ft (6.837 m) below land-surface datum, between May 6 and Nov. 3, 1982.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

WATER-LEVEL EXTREMES			MEASURED WATER LEVEL	
PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL	DATE	WATER LEVEL
SEPT. 30, 1981 TO DEC. 9, 1981	22.19	22.34	DEC. 9, 1981	22.34
DEC. 9, 1981 TO MAY 6, 1982	22.25	22.35	MAY 6, 1982	22.29
MAY 6, 1982 TO NOV. 3, 1982	21.55	22.43	NOV. 3, 1982	22.43



GLOUCESTER COUNTY

394942075131701. Local I.D., Shell Chemical 5 Obs. NJ-WRD Well Number, 15-0296.

LOCATION.--Lat 39°49'42", long 75°13'17", Hydrologic Unit 02040202, near the intersection of Mantua Grove Road and Route 295, West Deptford Township.
Owner: Shell Chemical Company.

AQUIFER.--Potomac-Raritan-Magothy aquifer system of Cretaceous age.

WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in (152 mm), depth 327 ft (99.7 m), screened 322 to 326 ft (98.1 to 99.4 m).

INSTRUMENTATION.--Water-level recorder.

DATUM.--Land-surface datum is 20.76 ft (6.328 m) above National Geodetic Vertical Datum of 1929.
Measuring point: Top edge of recorder shelf, 2.90 ft (0.880 m) above land-surface datum.

REMARKS.--Water level affected by nearby pumping.

PERIOD OF RECORD.--June 1962 to current year. Records for 1962 to 1977 are unpublished and are available in files of New Jersey District Office.

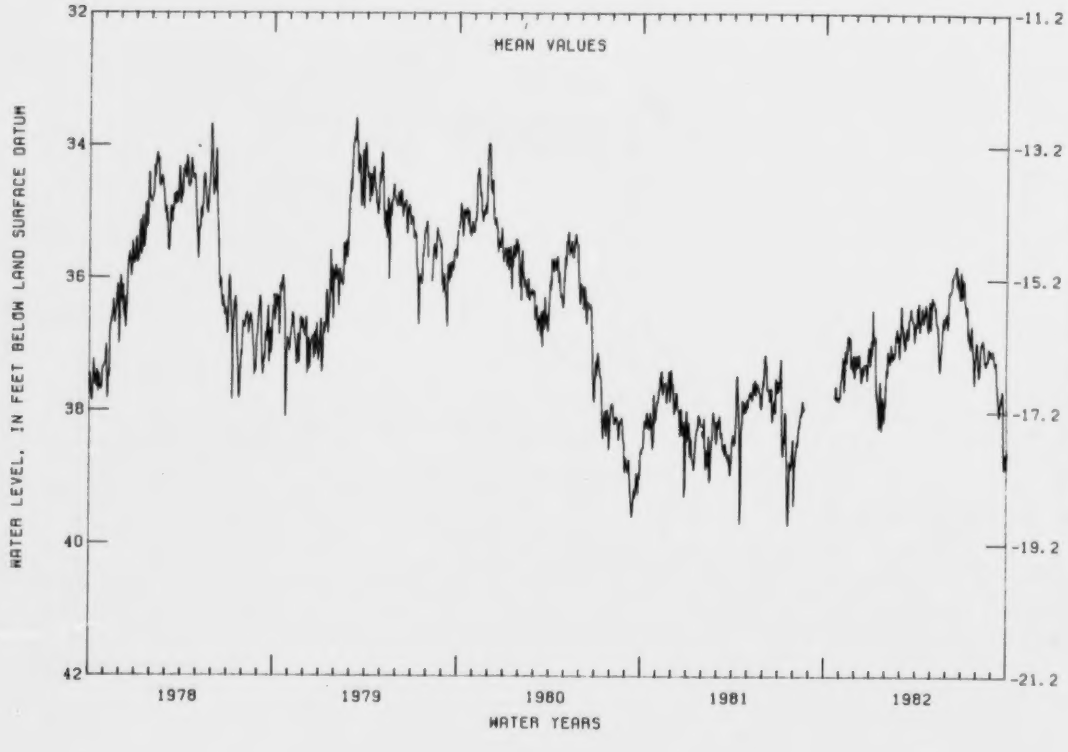
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 27.75 ft (8.458 m) below land-surface datum, Dec. 6, 1962; lowest, 40.63 ft (12.384 m) below land-surface datum, July 21, 1977.

EXTREMES FOR CURRENT YEAR.--Highest water level, 35.37 ft (10.781 m) below land-surface datum, June 20-21; lowest, 39.14 ft (11.930 m) below land-surface datum, Sept. 29.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	37.32	37.27	36.84	37.23	36.80	36.69	36.32	36.34	35.99	37.47	37.24
10	---	37.41	37.33	37.45	37.13	37.01	36.66	36.54	36.16	36.52	36.96	37.57
15	---	36.86	37.31	37.94	37.11	36.90	36.66	36.87	35.94	36.91	37.01	38.00
20	37.78	36.88	37.30	37.90	36.85	36.55	36.38	37.13	35.79	36.90	37.28	37.78
25	37.79	37.34	37.31	38.07	37.06	36.64	36.79	36.64	36.12	37.22	37.03	38.86
EOM	37.79	37.41	37.19	37.37	36.85	36.65	36.75	36.54	35.88	36.93	37.13	38.58
MEAN	---	37.26	37.29	37.60	37.08	36.74	36.58	36.70	36.13	36.74	37.14	37.88

WTR YR 1982 MEAN 37.04 HIGH 35.79 JUN 20 LOW 38.88 SEP 29



GLOUCESTER COUNTY

395232075094201. Local I.D., Eagle Point 3 Obs. NJ-WRD Well Number, 15-0323.

LOCATION.--Lat 39°52'35", long 75°09'50", revised, Hydrologic Unit 02040202, at the Texaco Eagle Point Refinery, West Deptford Township.
Owner: Texaco Incorporated.

AQUIFER.--Potomac-Raritan-Magothy aquifer system of Cretaceous age.

WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 8 in (203 mm), depth 276 ft (84.1 m), screened 255 to 275 ft (77.7 to 83.8 m), revised.

INSTRUMENTATION.--Water-level extremes recorder, April 1981 to current year. Water-level recorder, November 1949 to July 1975.

DATUM.--Land-surface datum is 20.96 ft (6.389 m) above National Geodetic Vertical Datum of 1929.
Measuring point: Top of casing, 3.00 ft (0.914 m) above land-surface datum, revised.

REMARKS.--Water level affected by tidal fluctuation and nearby pumping.

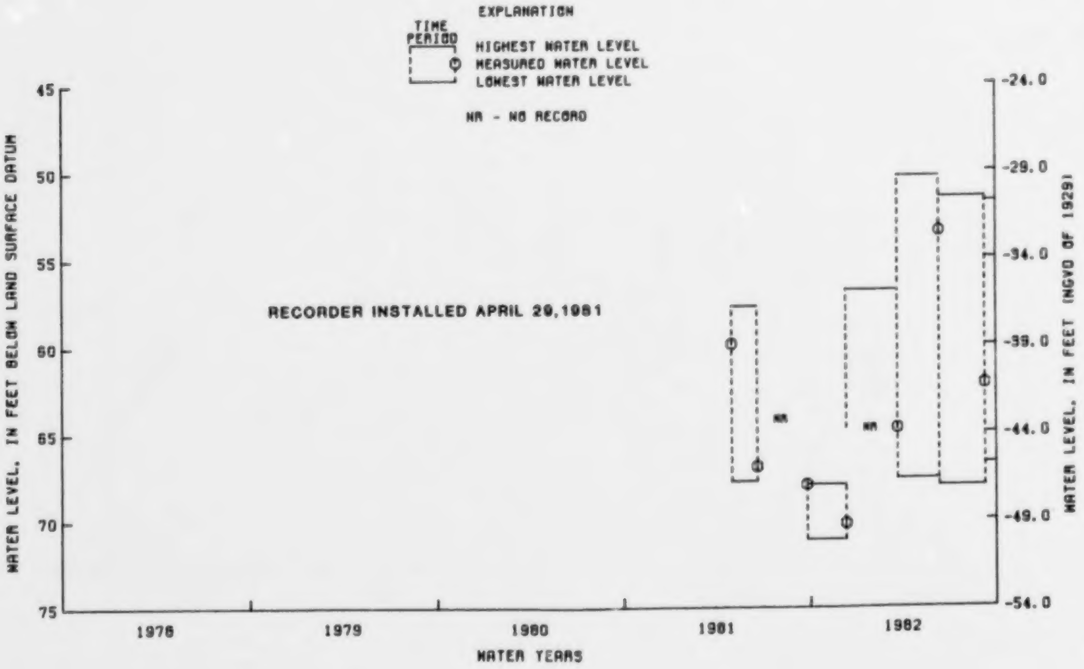
PERIOD OF RECORD.--November 1949 to July 1975, April 1981 to current year. Periodic manual measurements, October 1976 to March 1981. Records for 1975 to 1981 are unpublished and are available in files of New Jersey District Office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 37.70 ft (11.491 m) below land-surface datum, Nov. 25, 1950; lowest, 87.30 ft (26.609 m) below land-surface datum, June 28, 1963.

EXTREMES FOR CURRENT YEAR.--Highest water level, 50.28 ft (15.325 m) below land-surface datum, between Mar. 19 and June 9; lowest, 71.10 ft (21.671 m) below land-surface datum, between Sept. 23 and Dec. 9, 1981.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

WATER-LEVEL EXTREMES			MEASURED WATER LEVEL	
PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL	DATE	WATER LEVEL
SEPT. 23, 1981 TO DEC. 9, 1981	67.96	71.10	DEC. 9, 1981	70.18
DEC. 9, 1981 TO MAR. 19, 1982	56.82	---	MAR. 19, 1982	64.73
MAR. 19, 1982 TO JUNE 9, 1982	50.28	67.62	JUNE 9, 1982	53.44
JUNE 9, 1982 TO SEPT. 7, 1982	51.47	68.03	SEPT. 7, 1982	62.22
SEPT. 7, 1982 TO NOV. 3, 1982	51.71	66.71	NOV. 3, 1982	60.83



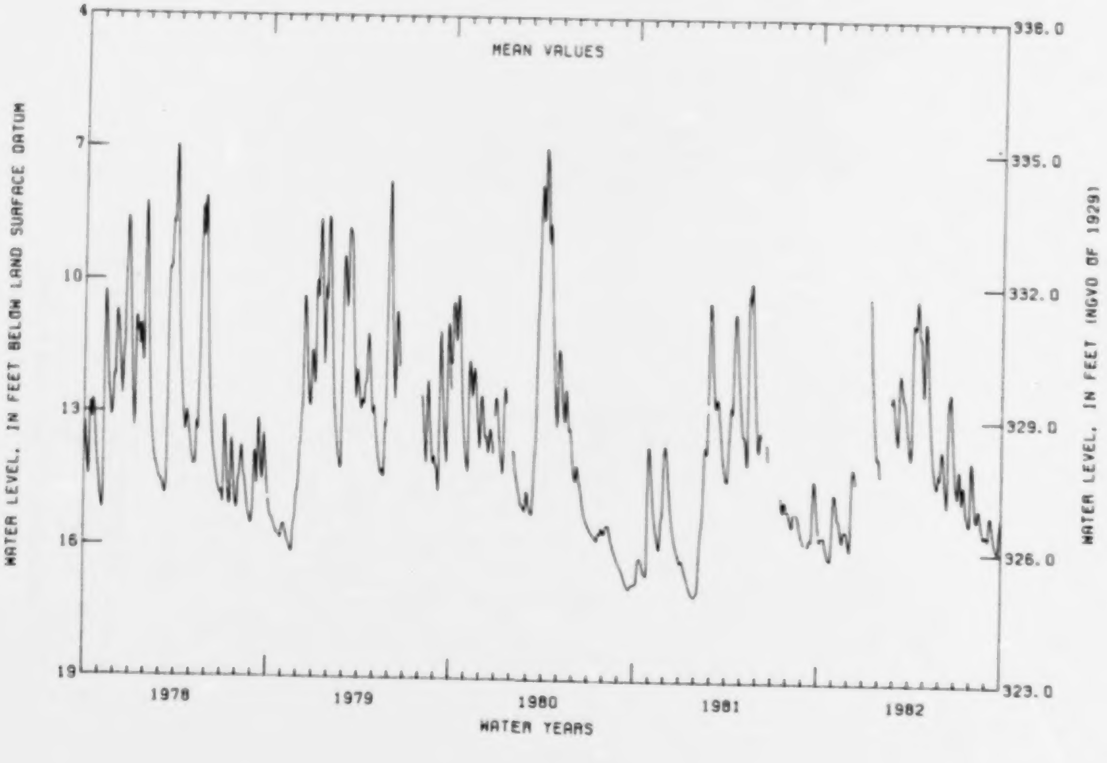
HUNTERDON COUNTY

402644074563601. Local I.D., Bird Obs. NJ-WRD Well Number, 19-0002.
LOCATION.--Lat 40°26'44", long 74°56'36", Hydrologic Unit 02040105, at U.S. Post Office, Sergeantsville.
Owner: Phillip Fleming.
AQUIFER.--Stockton Formation of Triassic age.
WELL CHARACTERISTICS.--Dug water-table observation well, diameter 3 ft (0.9 m), depth 21 ft (6.4 m), lined with stone.
INSTRUMENTATION.--Water-level recorder.
DATUM.--Land-surface datum is 342.00 ft (104.242 m) above National Geodetic Vertical Datum of 1929.
Measuring point: Top edge of recorder shelf, 1.50 ft (0.460 m) above land-surface datum.
PERIOD OF RECORD.--June 1965 to July 1970, May 1977 to current year. Periodic manual measurements, September 1970 to September 1976. Records for 1965 to 1976 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 6.91 ft (2.106 m) below land-surface datum, Mar. 28-29, 1978 and Apr. 2, 1980; lowest, 17.04 ft (5.194 m) below land-surface datum, Jan. 26-28, 1981.
EXTREMES FOR CURRENT YEAR.--Highest water level, 10.11 ft (3.082 m) below land-surface datum, Jan. 9; lowest, 16.18 ft (4.932 m) below land-surface datum, Oct. 24.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	15.65	15.08	14.36	---	---	13.43	10.90	11.80	13.95	14.25	14.69	15.19
10	15.63	15.30	14.22	10.59	---	11.98	10.86	13.07	14.70	14.62	15.24	15.34
15	15.91	15.70	---	12.17	---	12.32	10.55	13.93	12.64	14.43	14.96	15.72
20	16.14	15.51	---	13.28	---	12.58	11.13	14.37	12.47	15.04	15.38	15.90
25	16.01	15.56	---	13.84	12.46	13.17	12.17	14.35	13.72	15.29	15.61	15.48
EOM	14.67	15.89	---	---	12.86	13.85	10.75	13.85	14.49	13.89	15.60	15.03
MEAN	15.72	15.42	---	12.82	---	12.88	11.38	13.41	13.71	14.70	15.15	15.52

WTR YR 1982 MEAN 14.10 HIGH 10.23 JAN 9 LOW 16.17 OCT 23 AND OTHERS



SALEM COUNTY

393348075275701. Local I.D., Salem 1 Obs. NJ-WRD Well Number, 33-0251.

LOCATION.--Lat 39°33'48", long 75°27'55", Hydrologic Unit 02040206, about 300 ft (91 m) south of the intersection of Elm and Magnolia Streets, Salem.

Owner: U.S. Geological Survey.

AQUIFER.--Potomac-Raritan-Magothy aquifer system of Cretaceous age.

WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in (152 mm), depth 709 ft (216 m), screened 699 to 709 ft (213 to 216 m).

INSTRUMENTATION.--Water-level extremes recorder, May 1977 to current year. Water-level recorder, December 1965 to August 1975.

DATUM.--Land-surface datum is 3.00 ft (0.914 m) above National Geodetic Vertical Datum of 1929.

Measuring point: Front edge of cutout in recorder housing, 2.87 ft (0.875 m) above land-surface datum.

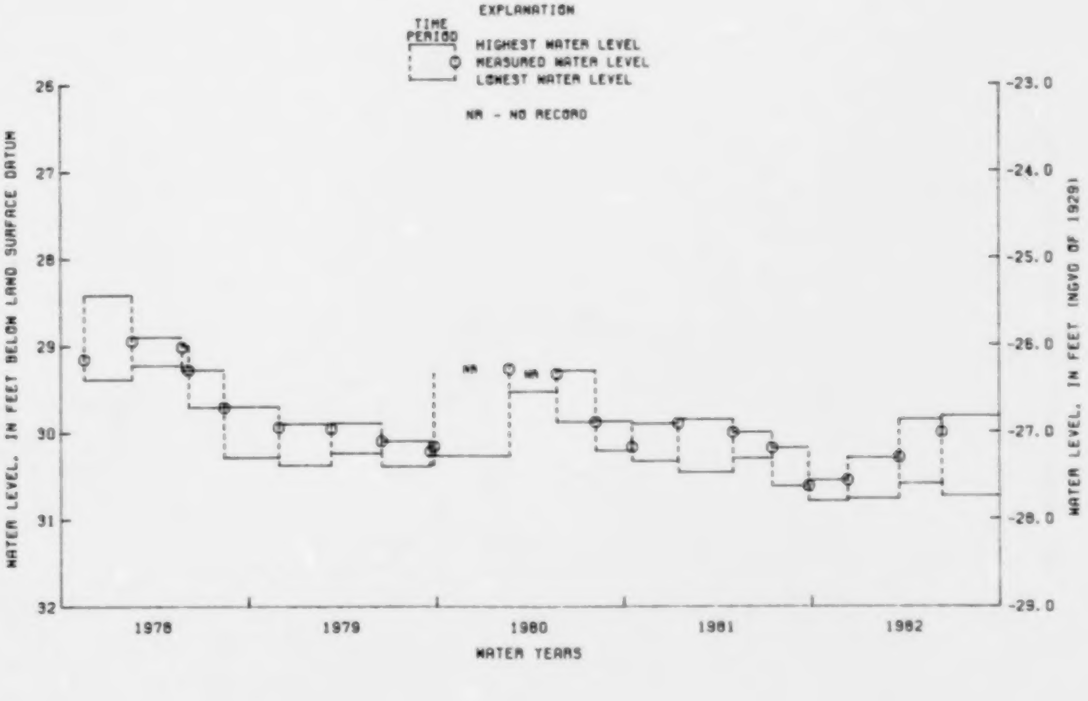
PERIOD OF RECORD.--December 1965 to August 1975, May 1977 to current year. Records for 1965 to 1980 are unpublished and are available in files of New Jersey District Office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 14.97 ft (4.563 m) below land-surface datum, Dec. 13, 1965; lowest, 30.79 ft (9.385 m) below land-surface datum, between Sept. 24 and Dec. 9, 1981.

EXTREMES FOR CURRENT YEAR.--Highest water level, 29.81 ft (9.086 m) below land-surface datum, between June 9 and Oct. 13, 1982; lowest, 30.79 ft (9.385 m) below land-surface datum, between Sept. 24 and Dec. 9, 1981.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

WATER-LEVEL EXTREMES			MEASURED WATER LEVEL	
PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL	DATE	WATER LEVEL
SEPT. 24, 1981 TO DEC. 9, 1981	30.55	30.79	DEC. 9, 1981	30.55
DEC. 9, 1981 TO MAR. 18, 1982	30.29	30.76	MAR. 18, 1982	30.29
MAR. 18, 1982 TO JUNE 9, 1982	29.85	30.59	JUNE 9, 1982	30.00
JUNE 9, 1982 TO OCT. 13, 1982	29.81	30.73	OCT. 13, 1982	30.58



SALEM COUNTY

393348075275703. Local I.D., Salem 3 Obs. NJ-WRD Well Number, 33-0253.

LOCATION.--Lat 39°33'48", long 75°27'55", Hydrologic Unit 02040206, about 300 ft (91 m) south of the intersection of Elm and Magnolia Streets, Salem.
Owner: U.S. Geological Survey.

AQUIFER.--Potomac-Raritan-Magothy aquifer system of Cretaceous age.

WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in (152 mm), depth 340 ft (103.6 m), screened 335 to 340 ft (102.1 to 103.6 m).

INSTRUMENTATION.--Water-level extremes recorder, May 1977 to current year. Water-level recorder, November 1965 to August 1975.

DATUM.--Land-surface datum is 3.00 ft (0.914 m) above National Geodetic Vertical Datum of 1929.
Measuring point: Front edge of cutout in recorder housing, 2.30 ft (0.701 m) above land-surface datum.

PERIOD OF RECORD.--November 1965 to August 1975, May 1977 to current year. Records for 1965 to 1981 are unpublished and are available in files of New Jersey District Office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 12.28 ft (3.743 m) below land-surface datum, February 13, 1966; lowest, 26.31 ft (8.019 m) below land-surface datum, between June 9 and Oct. 13, 1982.

EXTREMES FOR CURRENT YEAR.--Highest water level, 25.65 ft (7.818 m) below land-surface datum, between June 9 and Oct. 13, 1982; lowest, 26.31 ft (8.019 m) below land-surface datum, between June 9 and Oct. 13, 1982.

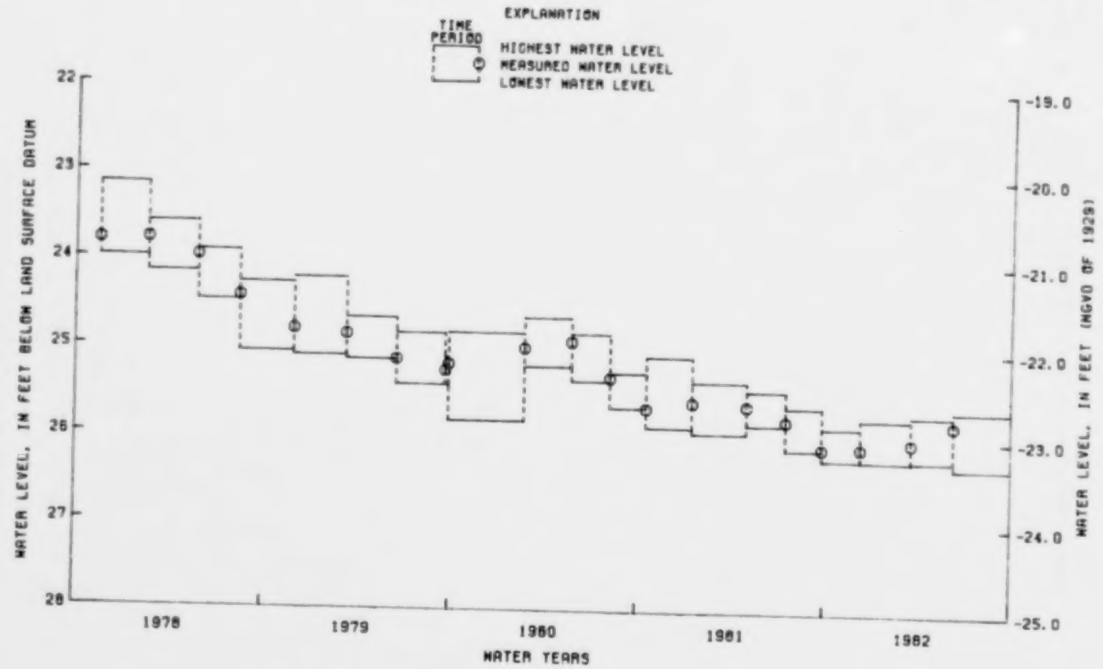
WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

WATER-LEVEL EXTREMES

PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL
SEPT. 24, 1981 TO DEC. 9, 1981	25.86	26.23
DEC. 9, 1981 TO MAR. 18, 1982	25.76	26.24
MAR. 18, 1982 TO JUNE 9, 1982	25.71	26.23
JUNE 9, 1982 TO OCT. 13, 1982	25.65	26.31

MEASURED WATER LEVEL

DATE	WATER LEVEL
DEC. 9, 1981	26.09
MAR. 18, 1982	26.02
JUNE 9, 1982	25.81
OCT. 13, 1982	26.13



SALEM COUNTY

393348075275702. Local I.D., Salem 2 Obs. NJ-WRD Well Number, 33-0252.

LOCATION.--Lat 39°33'48", long 75°27'55", Hydrologic Unit 02040206, about 300 ft (91 m) south of the intersection of Elm and Magnolia Streets, Salem.
Owner: U.S. Geological Survey.

AQUIFER.--Wenonah-Mount Laurel aquifer of Cretaceous age.

WELL CHARACTERISTICS.--Drilled water-table observation well, diameter 4 in (102 mm), depth 96 ft (29.3 m), screened 91 to 96 ft (27.7 to 29.3 m).

INSTRUMENTATION.--Water-level extremes recorder, May 1977 to current year. Water-level recorder, November 1965 to July 1975.

DATUM.--Land-surface datum is 3.25 ft (0.991 m) above National Geodetic Vertical Datum of 1929.
Measuring point: Front edge of cutout in recorder housing, 2.77 ft (0.844 m) above land-surface datum.

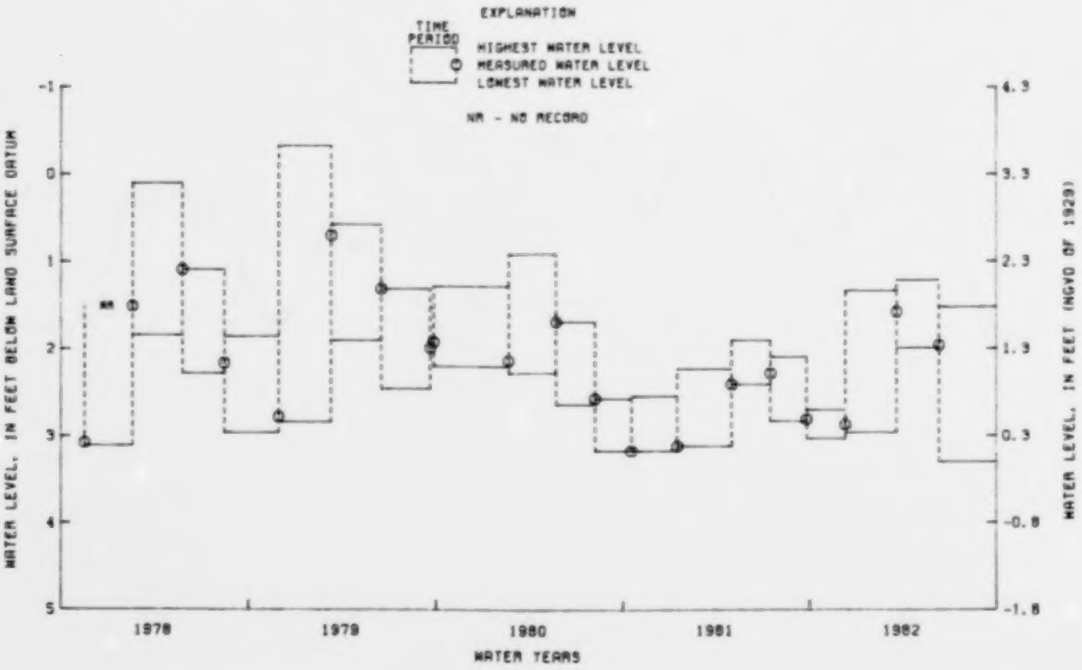
PERIOD OF RECORD.--November 1965 to July 1975, May 1977 to current year. Records for 1965 to 1981 are unpublished and are available in files of New Jersey District Office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 0.33 ft (0.101 m) above land-surface datum, between Nov. 28, 1978 and Mar. 9, 1979; lowest, 6.45 ft (1.966 m) below land-surface datum, Sept. 9, 1966.

EXTREMES FOR CURRENT YEAR.--Highest water level, 1.21 ft (0.369 m) below land-surface datum, between Mar. 18 and June 9; lowest, 3.30 ft (1.006 m) below land-surface datum, between June 9 and Oct. 13, 1982.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

WATER-LEVEL EXTREMES			MEASURED WATER LEVEL	
PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL	DATE	WATER LEVEL
SEPT. 24, 1981 TO DEC. 9, 1981	2.70	3.03	DEC. 9, 1981	2.87
DEC. 9, 1981 TO MAR. 18, 1982	1.33	2.96	MAR. 18, 1982	1.58
MAR. 18, 1982 TO JUNE 9, 1982	1.21	1.99	JUNE 9, 1982	1.96
JUNE 9, 1982 TO OCT. 13, 1982	1.52	3.30	OCT. 13, 1982	3.28



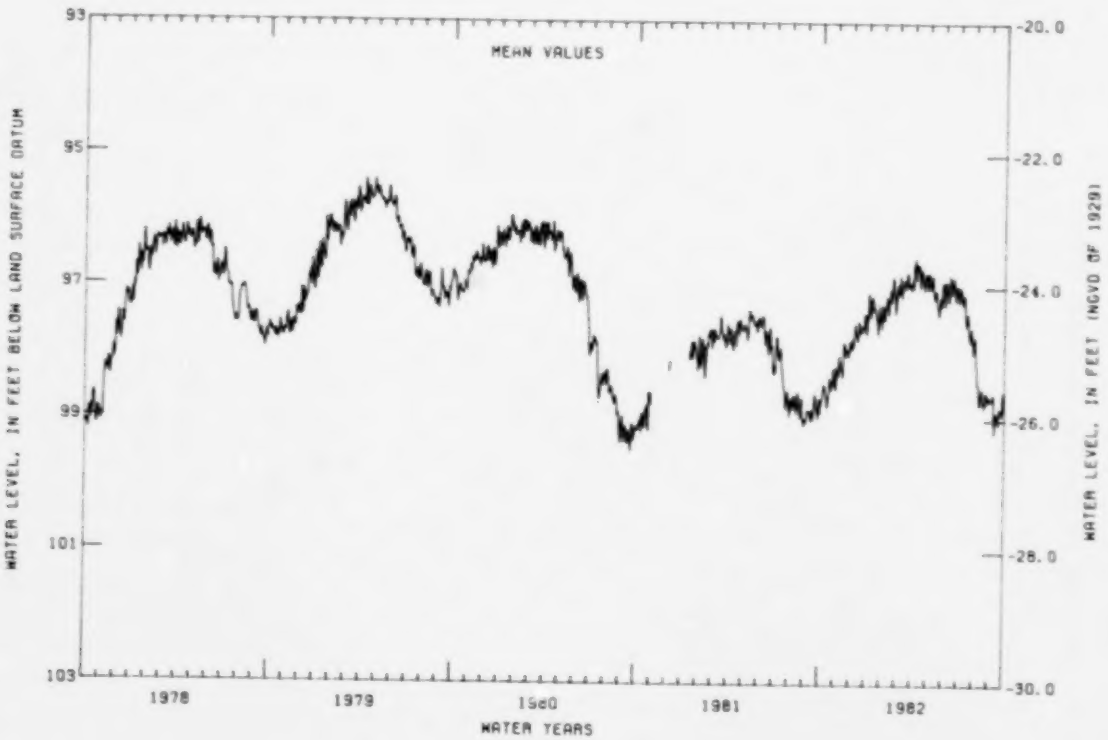
SALEM COUNTY

394037075191501. Local I.D., Point Airy Obs. NJ-WRD Well Number, 33-0187.
LOCATION.--Lat 39°40'37", long 75°19'14", Hydrologic Unit 02040206, at intersection of Point Airy and Woodstown-Swedesboro Roads, 1 mi (1.6 km) north of Woodstown Borough boundary.
Owner: U.S. Geological Survey.
AQUIFER.--Potomac-Raritan-Magothy aquifer system of Cretaceous age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in (152 mm), depth 672 ft (204.8 m), screened 664 to 672 ft (202.4 to 204.8 m).
INSTRUMENTATION.--Water-level recorder.
DATUM.--Land-surface datum is 73.00 ft (22.250 m), revised, above National Geodetic Vertical Datum of 1929.
Measuring point: Top of 6 inch casing, 1.80 ft (0.550 m) above land-surface datum.
REMARKS.--Water level affected by nearby pumping.
PERIOD OF RECORD.--February 1959 to August 1975, March 1977 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 78.55 ft (23.942 m) below land-surface datum, Mar. 6, 1959; lowest, 100.52 ft (30.638 m) below land-surface datum, Aug. 6-7, 1977.
EXTREMES FOR CURRENT YEAR.--Highest water level, 96.48 ft (29.407 m) below land-surface datum, Apr. 6; lowest, 99.35 ft (30.282 m) below land-surface datum, Sept. 10.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	98.57	98.29	97.79	97.25	97.48	97.08	96.73	97.01	97.01	97.03	98.22	98.68
10	98.57	98.25	97.69	97.15	97.25	97.15	96.68	96.81	97.17	97.19	98.63	99.20
15	98.69	97.90	97.50	97.33	97.11	96.92	96.94	97.10	96.94	97.49	98.55	98.99
20	98.38	97.94	97.64	97.48	96.98	96.92	96.78	97.26	96.90	97.56	98.82	98.81
25	98.43	98.05	97.61	97.28	97.26	96.94	96.89	97.14	97.20	97.66	98.58	98.83
EOM	98.48	97.91	97.69	97.25	97.13	96.91	97.03	96.92	97.03	97.83	98.69	98.91
MEAN	98.53	98.06	97.66	97.36	97.20	96.97	96.81	97.08	97.03	97.44	98.53	98.84

WTR YR 1982 MEAN 97.63 HIGH 96.56 APR 6 LOW 99.20 SEP 10



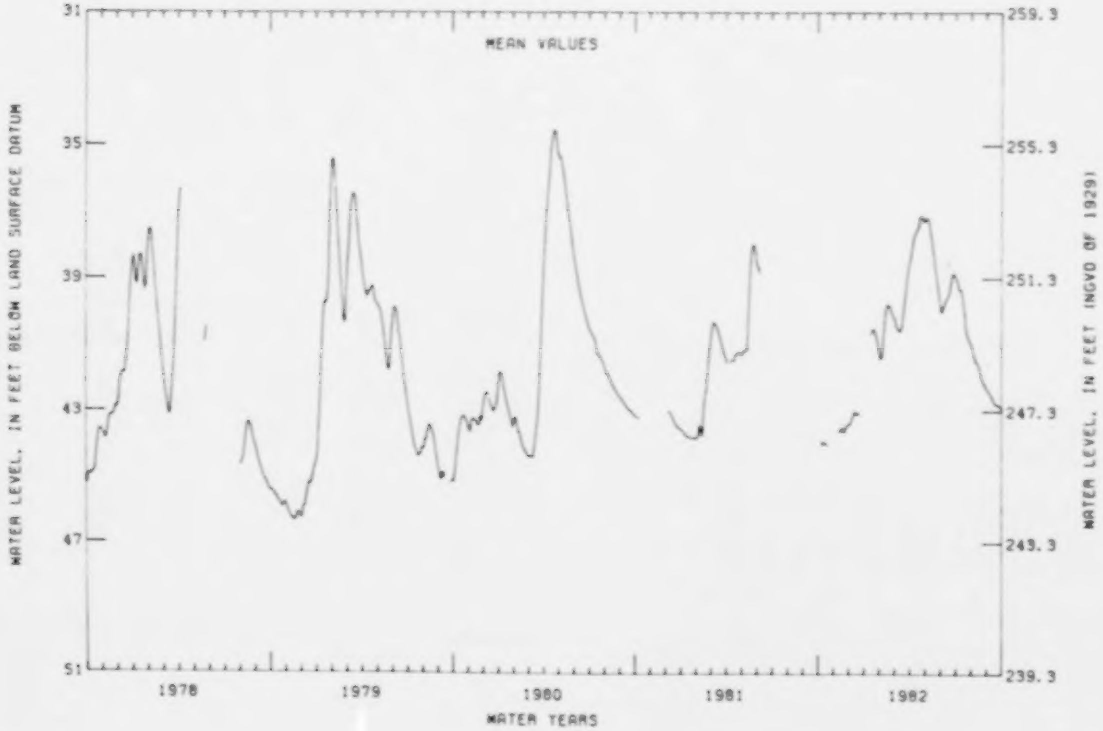
WARREN COUNTY

405050075033201. Local I.D., Hoffmann LaRocne 4 Obs. NJ-WRD Well Number, 41-0013.
LOCATION.--Lat 40°50'50", long 75°03'32", Hydrologic Unit 02040105, 1 mi (1.6 km) northeast of Belvidere on Route 46.
Owner: Hoffmann LaRoche. Incorporated.
AQUIFER.--Stratified drift of Pleistocene age.
WELL CHARACTERISTICS.--Drilled semi-artesian observation well, diameter 8 in (203 mm), depth 87 ft (26.5 m), screened 67 to 87 ft (20.4 to 26.5 m), revised.
INSTRUMENTATION.--Water-level recorder.
DATUM.--Land-surface datum is 290.30 ft (88.483 m) above National Geodetic Vertical Datum of 1929.
Measuring point: Top edge of recorder shelf, 2.20 ft (0.670 m) above land-surface datum.
REMARKS.--Water level affected by stage of Delaware River.
PERIOD OF RECORD.--September 1960 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 30.10 ft (9.174 m) below land-surface datum, July 5, 1972; lowest, 46.59 ft (14.201 m) below land-surface datum, Sept. 18, 1977.
EXTREMES FOR CURRENT YEAR.--Highest water level, 37.09 ft (11.305 m) below land-surface datum, Apr. 23; lowest, 44.03 ft (13.420 m) below land-surface datum, Oct. 19.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	---	43.27	---	41.13	40.43	38.09	37.18	39.85	39.13	41.27	42.44
10	43.99	---	43.04	---	40.15	40.57	37.67	37.46	39.65	39.33	41.49	42.57
15	43.96	43.52	43.10	40.57	39.78	40.44	37.52	37.98	39.52	39.73	41.66	42.74
20	---	43.61	43.03	40.55	39.84	39.79	37.21	38.60	39.18	40.46	41.96	42.80
25	---	43.46	---	40.81	40.10	39.13	37.14	39.15	38.84	40.78	42.14	42.82
EOM	---	43.38	---	41.28	40.16	38.49	37.24	39.85	38.95	40.99	42.33	42.93
MEAN	---	43.52	43.15	40.77	40.28	39.88	37.56	38.23	39.40	39.97	41.74	42.67

WTR YR 1982 MEAN 40.61 HIGH 37.10 APR 23 LOW 44.00 OCT 9 AND OTHERS



WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

CAMDEN COUNTY

WELL NUMBER	LOCAL IDENTIFIER	LATITUDE	LONGITUDE	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD)	SCREENED INTERVAL (FT)	GEOLOGIC UNIT	DATE OF SAMPLE	TEMPER-ATURE (DEG C)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)
194	NJ ZINC CO 4-DEEP	39 53 08	075 07 44	5	249-279	211MRPA	82-09-16	15.0	355	6.7	22
197	NJ ZINC CO 3-DEEP	39 53 13	075 08 04	5	223-253	211MRPA	82-09-16	15.0	880	6.4	64
57	OUR LADY LORDS HOSP-STBY	39 55 39	075 05 41	30	237-258	211MRPA	82-09-21	14.0	397	6.0	73
58	WEST JERSEY HOSPITAL 1	39 55 39	075 06 30	30	119-140	211MRPA	82-09-21	15.5	770	6.4	75
61	CAMDEN CITY WD-CITY 4	39 55 41	075 06 22	41	131-156	211MRPA	82-07-06	17.5	710	6.3	47
68	CAMDEN CITY WD-CITY 13	39 55 57	075 05 35	30	185-225	211MRPA	8[illegible]-07-06	14.0	640	6.1	50
78	CAMDEN CITY WD-CITY 5N	39 56 15	075 06 33	22	[illegible]34-169	211MRPA	82-07-06	16.0	380	6.1	33
98	NEW JERSEY WC-CAMDEN 52	[illegible]9 57 15	075 05 19	18	147-198	211MRPA	82-07-19	14.0	482	6.1	44
528	CAMDEN CITY WD-PUCHACK 7	39 58 35	075 03 02	20	140-180	211MRPA	82-07-13	13.0	167	5.4	15
545	CAMDEN CITY WD-MORRIS 11	39 59 00	075 03 25	10	124-154	211MRPA	82-07-12	14.5	265	6.7	20
363	CAMDEN CITY WD-PUCHACK 2	39 58 42	075 03 12	14	126-165	211MRPA	82-09-15	14.5	337	5.9	40
366	CAMDEN CITY WD-PUCHACK 1	39 58 45	075 03 12	10	108-140	211MRPA	82-07-13	14.0	280	6.4	23
368	CAMDEN CITY WD-DELAIR 1	39 58 48	075 03 47	10	103-139	211MRPA	82-09-15	15.0	280	6.8	23
369	CAMDEN CITY WD-DELAIR 2	39 58 51	075 03 55	5	109-144	211MRPA	82-09-15	15.0	294	6.9	30
370	CAMDEN CITY WD-DELAIR 3	39 58 53	075 03 48	8	87-129	211MRPA	82-09-15	15.0	214	6.9	18
586	CAMDEN CITY WD-MORRIS 12	39 59 14	075 03 24	10	86-117	211MRPA	82-07-13	15.5	215	7.2	16
386	CAMDEN CITY WD MORRIS 3A	39 59 34	075 02 29	10	73-103	211MRPA	82-07-12	15.0	700	6.5	30

Geologic unit (aquifer):

211MRPA - Potomac-Raritan-Magothy aquifer system

CAPE MAY COUNTY

WELL NUMBER	LOCAL IDENTIFIER	LATITUDE	LONGITUDE	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD)	SCREENED INTERVAL (FT)	GEOLOGIC UNIT	DATE OF SAMPLE	TEMPER-ATURE (DEG C)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)
27	CAPE MAY CITY WD 1	38 56 43	074 55 33	12	277-306	121CNSY	82-09-16	15.5	420	7.5	52
28	HARBESON-WALKER REF CO 2	38 56 43	074 57 55	10	235-265	121CNSY	82-09-16	15.5	980	7.4	210
36	CAPE MAY CITY WD 2	38 57 01	074 55 28	10	174-282	121CNSY	82-09-16	15.5	490	7.5	72
43	CAPE MAY CITY WD 3	38 57 24	074 55 21	15	-276	121CNSY	82-09-16	15.5	300	7.5	20
54	LOWER TWP MUA 2	38 59 05	074 56 25	12	212-247	121CNSY	82-09-16	15.0	--	7.7	15
57	LOWER TWP MUA 3	38 59 19	074 55 18	20	262-302	121CNSY	82-09-16	15.0	190	7.7	7.7
67	WILDWOOD WD RIO GRAND 38	39 01 35	074 53 52	10	461-590	122KRKDU	82-09-15	15.5	510	7.9	78
70	WILDWOOD WD RIO GRAND 36	39 01 37	074 53 52	9	48- 63	112CPMY	82-09-15	13.5	225	6.1	27
72	WILDWOOD WD RIO GRAND 31	39 01 38	074 53 50	10	108-135	112ESRNS	82-09-15	13.5	190	7.8	12
74	WILDWOOD WD RIO GRAND 29	39 01 39	074 53 49	8	191-231	121CNSY	82-09-15	14.5	166	7.6	11

Geologic unit (aquifer):

112CPMY - Cape May Formation, Undifferentiated
112ESRNS - Cape May Formation, Estuarine Sand Facies
121CNSY - Cohansey Sand
122KRKDU - Rio Grande water-bearing zone of the Kirkwood Formation

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

CUMBERLAND COUNTY

WELL NUMBER	LOCAL IDENTIFIER	LATITUDE	LONGITUDE	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD)	SCREENED INTERVAL (FT)	GEOLOGIC UNIT	DATE OF SAMPLE	TEMPER-ATURE (DEG C)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)
334	WEISGERBER, FRANK	39 16 11	075 13 43	5	400*	124PNPN	82-09-01	15.0	535	42
335	MOOTZ, CHARLES	39 16 12	075 13 46	5	430*	124PNPN	82-09-01	--	580	47
326	STANGER, GEORGE	39 16 17	075 13 55	5	440*	124PNPN	82-09-01	--	870	180
54	GANDY,MILES-GANDYS BEACH	39 16 18	075 13 54	5	378-402	124PNPN	82-09-01	15.0	3580	1000
256	MYERS, H	39 16 19	075 13 57	5	399-409	124PNPN	82-09-01	--	950	180
336	ROSSI, EDWARD	39 16 20	075 14 06	5	400*	124PNPN	82-09-02	--	560	47
337	COVE ROAD WATER ASSOC.	39 16 22	075 14 14	5	373-393	124PNPN	82-09-02	--	625	54
338	MAZZOLA, JOSEPH	39 16 23	075 14 18	5	400*	124PNPN	82-09-02	--	650	58
56	MONEY ISL MARINA 1	39 17 04	075 14 15	4	350-370	124PNPN	82-09-02	--	730	77
92	BAY PT ROD & GUN CLUB 2	39 17 46	075 15 10	5	397-417	124PNPN	82-09-02	--	780	79

* Total depth of well.

Geologic unit (aquifer):

124PNPN - Piney Point aquifer

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

GLOUCESTER COUNTY

WELL NUMBER	LOCAL IDENTIFIER	LATITUDE	LONGITUDE	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD)	SCREENED INTERVAL (FT)	GEOLOGIC UNIT	DATE OF SAMPLE	TEMPER-ATURE (DEG C)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)
1	CLAYTON BORO WD 3	39 39 12	075 05 22	133	746-800	211MRPA	82-09-17	21.0	1030	8.4	140
3	CLAYTON BORO WD 4	39 40 15	075 05 58	140	670-740	211MRPA	82-09-17	20.0	835	8.5	100
361	GLASSBORO BORO WD 5	39 41 41	075 07 10	140	600-657	211MRPA	82-08-17	19.5	640	8.4	59
60	GLASSBORO BORO WD 3	39 42 05	075 07 58	150	562-612	211MRPA	82-08-17	19.5	690	8.4	66
63	GLASSBORO BORO WD 4	39 43 08	075 07 02	146	549-599	211MRPA	82-08-17	19.0	545	8.4	40
248	WASHINGTON TWP MUA 5-73	39 43 39	075 04 33	125	[illegible]	211MRPA	82-08-18	19.0	378	8.3	8.8
422	PITMAN BORO WD F4	39 43 45	075 08 04	125	[illegible]	211MRPA	82-07-23	16.5	580	8.5	45
129	SO JERSEY WS CO 1	39 44 08	075 13 30	35	263*	211MRPA	82-09-22	15.0	950	8.2	170
253	WASHINGTON TWP MUA 6-64	39 44 37	075 02 50	152	584-652	211MRPA	82-08-18	19.0	292	8.2	2.8
236	SWEDESBORO BORO WD 3	39 44 34	075 18 43	75	241-312	211MRPA	82-08-17	15.0	403	7.1	43
261	WASHINGTON TWP MUA 1	39 45 20	075 02 18	100	581-612	211MRPA	82-08-13	19.0	242	8.1	1.6
267	WASHINGTON TWP MUA 3	39 45 46	075 04 00	150	575-640	211MRPA	82-08-13	18.5	242	8.1	1.8
8	WOODBURY CTY WD-SEWEL 2A	39 46 28	075 08 13	21	240-304	211MRPA	82-08-13	15.0	390	8.0	26
192	MANTUA MUA 5	39 46 41	075 11 09	88	315-337	211MRPA	82-08-17	17.5	461	7.8	39
194	MANTUA MUA 4	39 47 32	075 10 36	10	230-265	211MRPA	82-08-17	15.5	456	7.9	39
166	PENNS GROVE WC-BRIDGPT 2	39 47 55	075 21 08	20	65- 85	211MRPA	82-08-13	14.0	196	5.0	14
283	SHELL CHEM CO 3	39 49 19	075 12 56	30	358-383	211MRPA	82-08-17	15.5	740	7.6	140
284	SHELL CHEM CO 4	39 49 19	075 12 56	30	127-157	211MRPA	82-08-17	15.0	384	7.2	23
69	GREENWICH TWP WD 3	39 49 19	075 16 19	10	108-168	211MRPA	82-09-22	13.0	132	5.3	11
210	PAULSBORO WD 6-73	39 49 21	075 14 17	15	185-227	211MRPA	82-08-13	15.0	260	5.8	34
212	PAULSBORO WD 4-51	39 49 29	075 14 47	15	192-220	211MRPA	82-08-13	16.0	339	6.6	35
347	GREENWICH TWP WD 5	39 49 32	075 17 22	20	82-117	211MRPA	82-09-22	15.0	237	5.8	26
72	EI DUPONT REPAUNO 3	39 49 36	075 17 47	10	91-101	211MRPA	82-08-24	13.5	480	5.3	110
81	EI DUPONT REPAUNO 5	39 49 45	075 17 17	10	81- 99	211MRPA	82-08-24	15.0	255	5.5	39
331	WOODBURY WD RAILROAD 5	39 49 55	075 09 08	35	405-457	211MRPA	82-08-13	17.0	288	7.6	18
213	PAULSBORO WD 5-57	39 49 47	075 14 16	10	135-175	211MRPA	82-08-13	15.5	226	4.6	19
98	MOBIL OIL-GREENWICH 45	39 50 05	075 15 23	3	95-118	211MRPA	82-08-11	15.5	2100	5.2	120
109	MOBIL OIL-GREENWICH 41	39 50 27	075 15 03	20	230-259	211MRPA	82-08-11	16.5	750	5.5	100
360	WOODBURY CITY WD 6-81	39 50 34	075 08 42	30	211-305	211MRPA	82-08-13	14.5	309	7.7	17
118	MOBIL OIL-GREENWICH 47	39 50 36	075 15 01	20	220-240	211MRPA	82-08-11	14.5	440	6.1	110
221	ESSEX CHEM-OLIN 2-1970	39 50 48	075 14 01	10	215-235	211MRPA	82-07-23	14.0	980	6.7	150
220	ESSEX CHEM-OLIN 1-1954	39 50 51	075 13 49	10	234-256	211MRPA	81-10-13	16.0	1100	6.9	190
312	W DEPTFORD TWP MUA 6	39 51 07	075 09 46	20	322-372	211MRPA	82-08-18	14.5	342	7.9	42
373	W DEPTFORD TWP MUA 7	39 51 26	075 08 56	28	323-363	211MRPA	82-08-18	14.5	247	7.8	23
434	WESTVILLE BORO WD 6	39 51 42	075 07 10	40	267-317	211MRPA	82-09-17	15.5	336	7.3	11
314	TEXACO EAGLE PT 6	39 51 53	075 09 46	15	280-318	211MRPA	82-08-09	14.0	275	6.5	22
318	TEXACO EAGLE PT 2	39 52 07	075 09 30	17	259-289	211MRPA	81-10-09	14.5	300	6.4	27
321	TEXACO EAGLE PT 5	39 52 21	075 08 56	13	237-277	211MRPA	82-08-09	14.5	402	7.2	16
322	TEXACO EAGLE PT 3	39 52 22	075 09 18	20	258-288	211MRPA	81-10-09	15.5	540	6.7	32
323	TEXACO EAGLE PT 3-OBS	39 52 35	075 09 50	21	255-275	211MRPA	81-10-09	16.0	820	6.6	38
410	TEXACO EAGLE PT 4A	39 52 13	075 09 36	21	255-275	211MRPA	82-09-07	15.0	770	6.8	39
				5	256-296	211MRPA	81-10-09	14.5	510	6.5	30
				5	256-296	211MRPA	82-08-09	14.0	565	6.7	30

* Total depth of well.

Geologic unit (aquifer):

211MRPA - Potomac-Raritan-Magothy aquifer system

PAGE

Accuracy of field data and computed results.......... 10
Acknowledgments.......... 1
Acre-foot, definition of.......... 2
Adenosine triphosphate, definition of.......... 2
Alexauken Creek near Lambertville.......... 87
Algae, definition of.......... 2
Algal growth potential (AGP), definition of.......... 2
Allentown, Doctors Creek at.......... 108,176
Alloway Creek at Hancocks Bridge.......... 180
Alloway, Deep Run near.......... 174
Aquifer code list and geologic names.......... 2
Aquifer, definition of.......... 2
Artesian, definition of.......... 3
Artificial substrate.......... 6
Ash mass, definition of.......... 3
Assiscunk Creek near Burlington.......... 114
  near Columbus.......... 113,177
Assunpink Creek at Carsons Mills.......... 100
  at Edinburg.......... 176
  at Trenton.......... 102
  near Clarksville.......... 101
Aura, Still Run at.......... 172

Bacteria, definition of.......... 3
Balesville, Paulins Kill at.......... 48,179
Barrett Run near Bridgeton.......... 173
Beals Mills, Cohansey River near.......... 172
Bear Creek, PA, diversions.......... 170
Bear Swamp Reservoir, NY, diversions.......... 170
Beattystown, Musconetcong River at.......... 74
Beaver Brook near Belvidere.......... 58,175
Bedload, definition of.......... 3
Bed material, definition of.......... 3
Beltzville Lake.......... 165,167
Belvidere, Beaver Brook near.......... 58,175
  Delaware River at.......... 61
  Pequest River at.......... 59,179
Big Flat Brook at Tuttles Corner.......... 42
Big Timber Creek, North Branch at Glendora.......... 149
  North Branch at Laurel Road at Laurel Springs.......... 178
  South Branch, at Blackwood.......... 178
  South Branch, at Blackwood Terrace.......... 147
Biochemical oxygen demand, definition of.......... 3
Biomass, definition of.......... 3
Bird observation well.......... 198
Bivalve, Maurice River at.......... 180
Blacks Creek at at Mansfield Square.......... 176
Blackwood, South Branch Big Timber Creek at.......... 178
Blackwood Terrace, South Branch Big Timber Creek at.......... 147
Blairstown, Paulins Kill at.......... 50
  Yards Creek near.......... 53
Bloomsbury, Musconetcong River near.......... 76
Blue green algae, definition of.......... 5
Blue Marsh Lake, PA.......... 165,168
Bottom material.......... 3
Bridgeton, Barrett Run near.......... 173
  Cohansey River at.......... 36
  Indians Fields Branch at.......... 173
Browns Mills, North Branch Rancocas Creek at.......... 121
Buckshutem Creek near Laurel Lake.......... 172
Burlington, Assiscunk Creek near.......... 114
  Delaware River at.......... 116
Burlington County, ground-water levels.......... 181,186

Camden County, ground-water levels.......... 189
  Ground-water quality.......... 204
Camden, Cooper River at.......... 146
Cannonsville Reservoir.......... 163,166,169
Cape May Canal at North Cape May.......... 180
Cape May County, ground-water quality.......... 204
  Ground-water levels.......... 192
Carpentersville, Pohatcong Creek at.......... 68
Carsons Mills, Assunpink Creek at.......... 100
Cells/volume, definition of.......... 3
Centerton, Muddy Run at.......... 172
CFS-day, definition of.......... 3
Chemical oxygen demand, definition of.......... 3
Cherry Hill, South Branch Pennsauken Creek at.......... 136
Chester, PA, Delaware River at.......... 180
Chlorophyll, definition of.......... 3
Cinnaminson, Pompeston Creek at.......... 177
Clarksville, Assunpink Creek near.......... 101
Clayton, Little Ease Run at.......... 172
Cliff Lake, NY.......... 164,167
Cohansey River at Bridgeton.......... 36
  at Greenwich.......... 180
  at Seeley.......... 33
  near Beals Mills.......... 172
  West Branch, at Seeley.......... 175
Cohansey River basin.......... 33
  crest-stage partial-record stations in.......... 175
  discharge measurements at low flow partial-record stations in.......... 172

PAGE

Collection and computation of data.......... 8
Collection and examination of data.......... 11
Collingswood, Newton Creek at.......... 177
Color unit, definition of.......... 3
Columbia, Paulins Kill at Mouth at.......... 54
Columbus, Assiscunk Creek near.......... 113,177
  Crafts Creek at.......... 112,176
Computations, accuracy of results.......... 10
Contents, definition of.......... 3
Continuing record station, definition of.......... 3
Control, definition of.......... 3
Control structure, definition of.......... 3
Cooper River at Camden.......... 146
  at Haddonfield.......... 145
  at Kirkwood.......... 141
  at Lawnside.......... 143
  at Norcross Road at Lindenwold.......... 139
  North Branch near Marlton.......... 177
Cooperation.......... 1
Coopersville, Merrill Creek at.......... 173
Crafts Creek at Columbus.......... 112,176
Crest-stage partial-record stations.......... 175
Crosswicks Creek at Extonville.......... 103
  at New Egypt.......... 176
  at Groveville.......... 106
  Tributary No. 2 Tributary at New Egypt.......... 179
Cubic feet per second per square mile, definition of. 4
Cubic foot per second, definition of.......... 4
Cumberland County, ground-water levels.......... 193
  Ground-water quality.......... 205

Davis Mill, Raccoon Ditch at.......... 173
Deep Run near Alloway.......... 174
Defintion of terms.......... 2
Delaware and Raritan Canal at Kingston.......... 82
Delaware and Raritan Canal, diversions.......... 170
Delaware Bay at Reeds Beach.......... 180
Delaware Memorial Bridge, Wilmington, DE, Delaware River at.......... 160
Delaware River at Belvidere.......... 61
  at Burlington.......... 116
  at Chester, PA.......... 180
  at Delaware Memorial Bridge, Wilmington, DE.......... 160
  at Frenchtown.......... 81
  at Lambertville.......... 88
  at Lumberville.......... 84
  at Marine Terminal, Trenton.......... 180
  at Montague.......... 41
  at Northampton Street at Easton, PA.......... 62
  at Palmyra.......... 133
  at Port Jervis, NY.......... 37
  at Portland, PA.......... 46
  at Riegelsville.......... 176
  at Torresdale Intake at Philadelphia, PA.......... 163
  at Trenton.......... 90
  at Washington Crossing.......... 89
  below Tocks Island Damsite, nr Delaware Water Gap.. 45
  near Richmond, PA.......... 56
Delaware River basin, crest-stage partial-record stations in.......... 175
  Discharge measurements at miscellaneous sites in... 179
  Discharge measurements at low-flow partial-record stations in.......... 173
  Diversions and withdrawals in.......... 169
  Reservoirs in,.......... 163
Delaware Water Gap, PA, Delaware River below Tocks Island Damsite, near.......... 45
Diatoms, definition of.......... 5
Discharge, definition of.......... 4
Discharge measurements at miscellaneous sites.......... 179
Dissolved, definition of.......... 4
Diversions and withdrawals.......... 169
Diversity index, definition of.......... 4
Doctors Creek at Allentown.......... 108,176
  at Route 130 near Yardville.......... 110
Downstream order and station numbers.......... 8
Drainage area, definition of.......... 4
Drainage basin, definition of.......... 4
Dry mass, definition of.......... 3

Eagle Point 3 observation well.......... 197
East Pond Reservoir, NY, diversions.......... 170
Easton, PA, Delaware River at Northampton Street at.. 62
Edinburg, Assunpink Creek at.......... 176
Elm Tree Farm 2 observation well.......... 189
Elm Tree Farm 3 observation well.......... 190
Extonville, Crosswicks Creek at.......... 103

Fecal coliform bacteria, definition of.......... 3
Fecal streptococcal bacteria, definition of.......... 3
Flat Brook near Flatbrookville.......... 44

PAGE

Franklinville, Scotland Run at.... 172
Frenchtown, Delaware River at.... 81
  Harihokake Creek near.... 80

Gage height, definition of.... 4
Gaging station, definition of.... 4
  Records.... 26
Glendora, North Branch Big Timber Creek at.... 149
Gloucester County, ground-water levels.... 196
  ground-water quality.... 206
Godeffroy, NY, Neversink River at.... 40
Green algae, definition of.... 5
Green Lane Reservoir, PA.... 166,168
Greenwich, Cohansey River at.... 180
Ground-water level records.... 181
  Collection of the data.... 13
  Explanation of.... 13
Ground-water quality records.... 204
Groveville, Crosswicks Creek at.... 106

Hackettstown, Musconetcong River near.... 176
Haddon Heights, South Branch Newton Creek at.... 177
Haddonfield, Cooper River at.... 145
Hakihokake Creek at Milford.... 79
Hancocks Bridge, Alloway Creek at.... 180
Hardness, definition of.... 4
Harihokake Creek near Frenchtown.... 80
Harrisonville, Oldmans Creek near.... 178
Hazel Creek, PA, diversions.... 170
Higbee Beach 3 observation well.... 192
High tide, definition of.... 4
Hoffman LaRoche observation well.... 203
Honey Run near Ramseyburg.... 173
Hopatcong, Lake.... 165,167,175
Hunterdon County, ground-water levels.... 198
Huntsville, Pequest River at.... 175
Hutton Hill 1 observation well.... 191
Hydrologic bench-mark station, definition of.... 8
Hydrologic conditions.... 1
Hydrological station records.... 26
Hydrologic unit, definition of.... 4

Indian Fields Branch at Bridgeton.... 173
Instantaneous discharge, definition of.... 4
Introduction.... 1

Jadwin, General Edgar, Reservoir, PA.... 163,166
Jones Island 2 observation well.... 193

Kingston, Delaware and Raritan Canal at.... 82
Kirkwood, Cooper River at.... 141

Lake Hopatcong, Musconetcong River at outlet of.... 70,175
Lakes and reservoirs:
  Bear Swamp Reservoir, NY, diversions.... 170
  Beltzville Lake.... 165,167
  Blue Marsh Lake, PA.... 165,168
  Cannonsville, NY, diversions.... 163,166,169
  Cliff Lake, NY.... 164,167
  East Pond Reservoir, NY, diversions.... 170
  Green Lane Reservoir, PA.... 166,168
  Hopatcong, Lake.... 165,167,175
  Jadwin, General Edgar, Reservoir, PA.... 163,166,175
  Morris Lake, diversions.... 171
  Neversink Reservoir, NY.... 164,167,169
  Penn Forest Reservoir, PA.... 165,167
  Pepacton Reservoir, NY.... 163,166,169
  Prompton Reservoir, PA.... 163,166
  Still Creek Reservoir, PA.... 165,167
  Swinging Bridge Reservoir, NY.... 164,166
  Toronto Reservoir, NY.... 164,167
  Wallenpaupack, Lake, PA.... 163,166
  Walter, Francis E., Reservoir, PA.... 164,167
  Wild Creek Reservoir, PA.... 165,167
Lambertville, Alexauken Creek near.... 87
  Delaware River at.... 88
Land-surface datum.... 4
Laurel Lake, Buckshutem Creek near.... 172
Laurel Springs, North Branch Big Timber Creek at.... 178
Lawnside, Cooper River at.... 143
Lebanon State Forest, McDonalds Branch in.... 123
Lebanon State Forest 23D observation well.... 181
Lindenwold, Cooper River at Norcross Road at.... 139
Little Ease Run near Clayton.... 172
Little Creek near Lumberton.... 173
Lockatong Creek at Raven Rock.... 83
Lockwood, Lubbers Run at.... 173
  Musconetcong River at.... 72,179
  Lubbers Run at.... 173
Lopatcong Creek at Phillipsburg.... 64
Low-flow partial-record stations.... 172
Low tide, defintion of.... 4

PAGE

Lubbers Run at Lockwood.... 173
Lumberton, Little Creek near.... 173
Lumberville, Delaware River at.... 84

Mansfield Square, Blacks Creek at.... 176
Mantua Creek at Mantua.... 153
  at Pitman.... 151,178
  at Salina.... 178
Marlton, Norch Branch Cooper River near.... 177
Maurice River basin.... 26
  discharge measurements at low-flow partial-record stations in.... 172
Maurice River at Bivalve.... 180
  at Norma.... 26
McDonalds Branch in Lebanon State Forest.... 123
Mean concentration, definition of.... 6
Mean discharge, definition of.... 4
Mean high or low tide, definition of.... 4
Medford, SW Branch Rancocas Creek at Route 70 at.... 177
  Sharps Run at Route 541 at.... 173
Medford 1 observation well.... 184
Medford 2 observation well.... 185
Medford 4 observation well.... 182
Medford 5 observation well.... 183
Menantico Creek near Millville.... 32
Merrill Creek at Coopersville.... 173
Metamorphic stage, definition of.... 4
Methylene blue active substance, definition of.... 4
Micrograms per gram, definition of.... 4
Micrograms per liter, definition of.... 4
Middleville, Trout Brook near.... 173
Milford, Hakihokake Creek at.... 79
Milligrams per liter, definition of.... 4
Millville, Menantico Creek near.... 32
Montague, Delaware River at.... 41
Moorestown, North Branch Pennsauken Creek near.... 134,177
Morris Lake, diversions.... 171
Morrisville, PA, Borough of, diversions.... 170
Muddy Run at Centerton.... 172
Mullica Hill, Raccoon Creek at.... 178
  Raccoon Creek near.... 155,174
Musconetcong River at Beattystown.... 74
  at Lockwood.... 72,179
  at outlet of Lake Hopatcong.... 70,175
  at Riegelsville.... 77
  near Bloomsbury.... 76
  near Hackettstown.... 176
Muskee Creek near Port Elizabeth.... 172

National Geodetic Vertical Datum of 1929 (NGVD of 1929).... 4
National stream-quality accounting network (NASQUAN), definition of.... 8
National substrate, definition of.... 6
Natural substrate.... 6
Neversink Reservoir, NY.... 164,167,169
Neversink River at Godeffroy, NY.... 40
New Egypt, Crosswicks Creek at.... 176
  Crosswick Creek Tributary No. 2 Tributary at.... 179
Newton Creek at Collingswood.... 177
  South Branch, at Haddon Heights.... 177
New Village, Pohatcong Creek at.... 66,173,175
NJ-WRD well number.... 4
Norma, Maurice River at.... 26
North Cape May, Cape May Canal at.... 180
Numbering system for wells and miscellaneous sites.... 8

Octoraro Creek, West Branch, PA, diversions.... 171
Octoraro Lake, diversions.... 171
Oldmans Creek at Porches Mill.... 159,179
  near Harrisonville.... 178
Orange Street observation well.... 194
Organic mass, definition of.... 3
Organism, definition of.... 5
Organism count/area, definition of.... 5
Organism count/volume, definition of.... 5
Other data available.... 11

Palmyra, Delaware River at.... 133
Partial-record stations, crest-stage.... 175
  Definition.... 5
  Low-flow.... 172
  Tidal crest-stage.... 180
Particle size, definition of.... 5
Particle-size classification.... 5
Paulins Kill at Balesville.... 48,179
  at Blairstown.... 50
  at Mouth at Columbia.... 54
Pemberton, North Branch Rancocas Creek at.... 130
Penn Forest Reservoir, PA.... 165,167
Pennsauken Creek, North Branch, near Moorestown.... 134,177
  South Branch at Cherry Hill.... 136

PAGE

Pepacton Reservoir, NY..........................163,166,169
Pequest River at Belvidere.......................... 59,179
  at Huntsville.. 175
  at Pequest... 57
  at Townsbury... 175
Percent composition, definition of..................... 5
Periphyton, definition of.............................. 5
Pesticide program, definition of....................... 8
Pesticides, definition of.............................. 5
Philadelphia, PA, City of Philadelphia, diversions... 170
Phillipsburg, Lopatcong Creek at....................... 64
Phytoplankton, definition of........................... 5
Picocurie, definition of............................... 5
Pitman, Mantua Creek at.........................151,178
Plankton, definition of................................ 5
Pohatcong Creek at Carpentersville..................... 68
  at New Village..............................66,173,175
Point Airy observation well........................... 202
Polychlorinated biphenyls, definition of............... 5
Pompeston Creek at Cinnaminson........................ 177
Porches Mill, Oldmans Creek at..................159,179
Port Elizabeth, Muskee Creek near..................... 172
Port Jervis, NY, Delaware River at..................... 37
Portland, PA, Delaware River at........................ 46
Primary productivity, definition of.................... 5
Prompton Reservoir, PA..........................163,166
Publications, ground water............................. 13
  Surface water.. 10
  Water quality.. 12
  Techniques of water-resources investigations....... 16

Raccoon Creek at Mullica Hill......................... 178
  near Mullica Hill.............................155,174
  near Swedesboro...................................... 157
Raccoon Ditch at Davis Mill........................... 173
Radiochemical program, definition of................... 8
Radioisotopes, definition of........................... 6
Ramseyburg, Honey Run near............................ 173
Rancocas Creek, North Branch, at Browns Mills........ 121
  at Pemberton... 130
  South Branch, at Retreat............................. 117
    at Vincentown...............................119,177
  Southwest Branch, at Route 70 at Medford............ 177
Raven Rock, Lockatcong Creek at........................ 83
Records collected by other agencies.................... 11
Recoverable from bottom material....................... 6
Reeds Beach, Delaware Bay at.......................... 180
Remark codes for water-quality data.................... 12
Reservoirs: See Lakes and reservoirs
Retreat, South Branch Rancocas Creek at............... 117
Rhodia Corp. 1 observation well....................... 188
Richmond, PA, Delaware River near...................... 56
Riegelsville, Delaware River at....................... 176
  Musconetcong River at................................ 77
River mile, definition of.............................. 6
Runoff in inches, definition of........................ 6

Salem County, ground-water levels..................... 199
Salem 1 observation well.............................. 199
Salem 2 observation well.............................. 201
Salem 3 observation well.............................. 200
Salem River at Woodstown.............................. 161
Salina, Mantua Creek at............................... 178
Screened interval, definition of....................... 6
Scotland Run at Franklinville......................... 172
Sediment... 12
Sediment, definition of................................ 6
Seeley, Cohansey River at.............................. 33
  West Branch Cohansey River at........................ 175
Selected references.................................... 13
Sharps Run at Route 541 at Medford.................... 173
Shell 5 observation well.............................. 196
Sheppards 1 observation well.......................... 195
Solute, definition of.................................. 6

PAGE

Special networks and programs.......................... 8
Specific conductance, definition of.................... 6
Stage and water discharge records, explanation of.... 8
Stage-discharge relation, definition of................ 6
Still Creek Reservoir, PA.......................165,167
Still Run at Aura..................................... 172
Stockton, Wickecheoke Creek at......................... 86
Stow Creek basin, discharge measurements at low-flow
    partial-record stations in........................ 173
Streamflow, definition of.............................. 6
Substrate, definition of............................... 6
Surface area, definition of............................ 7
Surficial bed material................................. 7
Suspended recoverable, definition of................... 7
Suspended sediment, definition of...................... 6
Suspended-sediment concentration, definition of...... 6
Suspended-sediment discharge, definition of............ 6
Suspended-sediment load, definition of................. 6
Suspended, total, definition of........................ 7
Swedesboro, Raccoon Creek near........................ 157
Swinging Bridge Reservoir, NY...................164,166

Taxonomy, definition of................................ 7
Terms, definition of................................... 2
Thermograph, definition of............................. 7
Tidal crest-stage stations............................ 180
Time-weighted average, definition of................... 7
Tocks Island Damsite, Delaware River below, near
    Delaware Water Gap, PA............................. 45
Tons per acre-foot..................................... 7
Tons per day, definition of............................ 7
Toronto Reservoir, NY...........................164,167
Total, definition of................................... 7
Total coliform bacteria, definition of................. 3
Total in bottom material, definition of................ 7
Total load, definition of.............................. 7
Total organism count................................... 5
Total, recoverable, definition of...................... 7
Total sediment discharge, definition of................ 6
Townsbury, Pequest River at........................... 175
Trenton, Assunpink Creek at........................... 102
  City of, diversions.................................. 170
  Delaware River at.................................... 90
  Delaware River at Marine Terminal at................. 180
Trout Brook near Middleville.......................... 173
Tuttles Corner, Big Flat Brook at...................... 42

Vincentown, South Branch Rancocas Creek at.........119,177

Wallenpaupack, Lake, PA.........................163,166
Walter, Francis E., Reservoir, PA...............164,167
Warren County, ground-water levels.................... 227
Washington Crossing, Delaware River at................. 89
Water Quality Records, explanation of.................. 11
Water temperature...................................... 12
WDR, definition of..................................... 7
Weighted average, definition of........................ 7
Wet mass, definition of................................ 3
Wickecheoke Creek at Stockton.......................... 86
Wild Creek Reservoir, PA........................165,167
Willingboro 1 observation well........................ 187
Willingboro 2 observation well........................ 186
Wilmington, DE, Delaware River at Delaware
    Memorial Bridge.................................... 160
Withdrawals from the Delaware River Basin............. 169
Woodridge, NY, diversions............................. 169
Woodstown, Salem River at............................. 161
Weighted average....................................... 7
WSP, definition of..................................... 8

Yards Creek near Blairstown............................ 53
Yardville, Doctors Creek at Route 130 near............ 110

Zooplankton, definition of............................. 5

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October 1, 1978

FACTORS FOR CONVERTING INCH-POUND UNITS TO INTERNATIONAL SYSTEM UNITS (SI)

The following factors may be used to convert the inch-pound units published herein to the International System of Units (SI). This report contains both the inch-pound and SI unit equivalents in the station manuscript descriptions.

Multiply inch-pound units	By	To obtain SI units
	Length	
inches (in)	2.54x10^{1}	millimeters (mm)
	2.54x10^{-2}	meters (m)
feet (ft)	3.048x10^{-1}	meters (m)
miles (mi)	1.609x10^{0}	kilometers (km)
	Area	
acres	4.047x10^{3}	square meters (m^{2})
	4.047x10^{-1}	square hectometers (hm^{2})
	4.047x10^{-3}	square kilometers (km^{2})
square miles (mi^{2})	2.590x10^{0}	square kilometers (km^{2})
	Volume	
gallons (gal)	3.785x10^{0}	liters (L)
	3.785x10^{0}	cubic decimeters (dm^{3})
	3.785x10^{-3}	cubic meters (m^{3})
million gallons	3.785x10^{3}	cubic meters (m^{3})
	3.785x10^{-3}	cubic hectometers (hm^{3})
cubic feet (ft^{3})	2.832x10^{1}	cubic decimeters (dm^{3})
	2.832x10^{-2}	cubic meters (m^{3})
cfs-days	2.447x10^{3}	cubic meters (m^{3})
	2.447x10^{-3}	cubic hectometers (hm^{3})
acre-feet (acre-ft)	1.233x10^{3}	cubic meters (m^{3})
	1.233x10^{-3}	cubic hectometers (hm^{3})
	1.233x10^{-6}	cubic kilometers (km^{3})
	Flow	
cubic feet per second (ft^{3}/s)	2.832x10^{1}	liters per second (L/s)
	2.832x10^{1}	cubic decimeters per second (dm^{3}/s)
	2.832x10^{-2}	cubic meters per second (m^{3}/s)
gallons per minute (gal/min)	6.309x10^{-2}	liters per second (L/s)
	6.309x10^{-2}	cubic decimeters per second (dm^{3}/s)
	6.309x10^{-5}	cubic meters per second (m^{3}/s)
million gallons per day	4.381x10^{1}	cubic decimeters per second (dm^{3}/s)
	4.381x10^{-2}	cubic meters per second (m^{3}/s)
	Mass	
tons (short)	9.072x10^{-1}	megagrams (Mg) or metric tons